



A Weekly Journal of Pharmacy and the Drug-trade.
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THE unique advantage of advertising in *THE CHEMISTS' AND DRUGGISTS' DIARY*, next to the fact that it appeals to the drug-trade of the British Empire, is that the advertisements speak

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The Diary for 1902

is now in preparation, and the Publisher is booking orders for business announcements to be inserted in it. Those who have not yet given him instructions for their advertisements should do so without further delay, as it is imperative that the printed sheets should be in the binders' hands early in November, so that we may deliver *DIARIES* to subscribers in Australia, China, Japan, India, Ceylon, South Africa, and all other parts of the Empire.

Before the New Year.

WE strongly recommend every business house to take advantage of this excellent opportunity to announce the nature of their business to the drug trade of the British Empire. It will pay them well, for every advertisement is fully classified in the "Buyers' Guide," which is referred to by thousands of buyers all the year round. Instructions for advertisements should be sent to the Publisher of the *C. & D.*, 42 Cannon Street, London, E.C.

Summary.

A CURIOUS SPONGE TRANSACTION is reported on p. 620.

A LEICESTER CHEMIST has died from prussic-acid poisoning (p. 607).

MR. H. N. B. SPINK, formerly of Westminster, died this week (p. 608).

B.P. NAMES mean B.P. drugs. So it has been decided in Natal (p. 609).

THE MAJOR EXAMINATION QUESTIONS given in Edinburgh are printed on p. 619.

TRANSVAAL business prospects are still poor, says our Cape correspondent (p. 609).

MR. W. COLEMAN, the "Wincarnis" director, was the defendant in a debt action reported on p. 620.

SULPHUROUS-ACID GAS has been successfully employed to destroy rats in ships' holds (p. 599).

TWO PHARMACEUTICAL CANDIDATES for the British Home and Hospital for Incurables are mentioned on p. 618.

A PROPOSAL to divide the Irish Pharmaceutical Licence examination was adopted at the annual meeting (p. 606).

MR. JESSE BOOT, in the guise of Jack Horner with his pie provides the subject for this week's nursery-rhyme (p. 610).

OF 202 candidates at Galen Place this month, 150 failed (p. 617). The names of those who passed are given on p. 619.

MESSRS. BLAIR (Cork), GOLDEN (Birr), and SMITH (Dublin) are the new members of the Irish Pharmaceutical Council (p. 603).

"DR. HEAD," a Canning Town unqualified practitioner, has been arrested on a charge of manslaughter as regards a patient (p. 598).

THE report of the Early-closing Committee of the House of Lords, with evidence, has now been published, and is commented upon (p. 613).

THE PHARMACEUTICAL BENEVOLENT FUND was discussed by the Pharmaceutical Council on Wednesday. More money is wanted (p. 618).

THE NAMES of those who have passed the Irish Pharmaceutical Preliminary and Registered Druggist examinations are given on p. 603.

DERMATITIS, resulting from excoriation with soda solution, has been held not to be an accident under the Workmen's Compensation Act (p. 620).

THE IRISH PHARMACEUTICAL COUNCIL on October 2 passed a resolution of condolence respecting the death of President McKinley (p. 602).

MR. T. E. WALLIS, B.Sc., has been appointed to succeed Dr. Lapworth as assistant-lecturer in chemistry at the School of Pharmacy (p. 618).

THE Australian Commonwealth Tariff raises the duties considerably, medicines being amongst the articles which are to pay higher rates (p. 610).

THE CHAIN for the badge is growing. So the report of the Pharmaceutical Council shows (p. 617), and a view of its effects is depicted on p. 623.

A CONSTITUENT has been discovered in the steam-distillate of rose-petals which accounts for the difference in odour between rose-water and otto (p. 614).

TWENTY-NINE Preliminary examination certificates have been accepted by the Pharmaceutical Council, making a total of sixty-nine apprentices registered this year—the smallest number on record (p. 619).

VACCINATION is the subject of an illustrated article by Dr. W. Harrison Martindale on p. 629. He relates the history of vaccination, tells all about the bacteriology of lymph, and describes its production.

THERE is a fair business passing on the markets, and among the dearer articles are areca nuts, halsam tolu, Sumatra teazoin, Cochin ginger, jalap, and shellac. In chemicals oxalic, citric, and tartaric acids and copper sulphate are easier. Quinine has been unsettled. The drug-sales are reported on p. 626.

THE ANNUAL MEETING of the Pharmaceutical Society of Ireland is fully reported in this issue, beginning on p. 603. The topics of greatest interest discussed were the difficulty of getting convictions under the Pharmacy Act owing to the perverseness of provincial magistrates, and company pharmacy, in respect to which it is proposed to add a clause to the Act.

English News.

Local Newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Brevities.

At Lambeth on October 2 a costermonger named Jones was committed for trial on a charge of robbery from the person of Mr. Frank Statham, who is described as an "operative chemist."

On Monday evening Mr. G. Claridge Druce, Mayor of Oxford, and the Deputy-Mayor (Mr. F. P. Morrell), gave a reception to the Incorporated Law Society in the City Buildings, Oxford.

Harry Chapman, brother of the manager of the Dolphin Soapworks, Kingston, near Brighton, died on October 3 from the results of a fall from an unrailed platform which went round the glycerin-press.

Further evidence in support of the charge against William Dyer Fraser of obtaining contributions by fraud from well-known doctors was heard at Marylebone Police Court, and in the end prisoner was committed for trial.

Mr. Wm. Thomson, F.I.C., of Manchester, has been appointed public analyst for the borough of Stockport at a minimum salary of 20*l.* per year, with 10*s.* 6*d.* for each analysis, and 2*l.* 2*s.* when evidence is given in Court.

At a sale of shares at Lincoln on October 4 an ordinary 1*l.* share (fully-paid) in Boots' Cash Chemists (Eastern) (Limited) was passed at 40*s.*, and nineteen 6-per-cent. 1*l.* preference shares (fully-paid) in the same concern were withdrawn at 26*s.*

At Bloomsbury County Court on October 2, Mr. Freson an unqualified assistant with Mr. G. S. Boutall, chemist and druggist, 6 Caledonian Road, N., was fined 5*l.*, and costs, at the instance of the Pharmaceutical Society, for selling a bottle of Winslow's Soothing-syrup.

At the recent students' examination at the Manchester College of Pharmacy a prize of books was awarded to Mr. R. A. Collins for theoretical work; and the medal given by an old M.C.P. student for the best analytical work was taken by Mr. A. Crossley, who had Mr. R. McMyn as a close competitor.

The chemists of Cambridge have agreed to close on Thursdays at 5 o'clock from October to June. It has been the custom hitherto to close early on one day in the week only during the summer months. The new arrangement has been brought about through the instrumentality of the Committee of the local Pharmaceutical Association.

A provisional full licence for an hotel to be erected near the United Alkali Company's works, to be conducted by the Thornton Public-house Trust on Earl Grey's plan, was granted last week by the Fleetwood Magistrates. The directors of the house will be two directors of the United Alkali Company, the local works-manager, a resident of the district, and a nominee of the Bench.

"At a meeting of the Pharmacy Club at the Café Royal in the evening (October 1), under the presidency of Mr. News-holme, who wore the jewel badge which had just been presented to him by the chemists of England, and at which Dr. Luff was a guest, the toast of the re-elected President of the Pharmaceutical Conference (Mr. G. C. Druce) was given with great enthusiasm."—*Oxford Chronicle*.

Alleged Bogus Doctor.

At an inquest held at Canning Town last week on the body of a fireman named Guirey, who is said to have died from a peritonitic abscess, the jury returned a verdict of manslaughter against Absalom Wm. Head, described as a medical assistant, who attended deceased in the beginning of his illness. The evidence of deceased's wife was to the effect that she went to "Dr." Head's surgery, and was surprised to find it empty with the exception of a few medicine-bottles on a sideboard. Head told her he was a

qualified man, but had seen better days, and showed her several testimonials, one of which the Coroner read as follows:—

Mile End Old Town Infirmary.—We certify that A. W. Head acted as dispenser and dentist in 1870 for three months as *locum tenens*, and gave entire satisfaction to the medical staff.

A board in the window of the "surgery" said, "Mr. Head, surgeon, dentist, accoucheur, late with Dr. Mayer." Head gave some medicine for deceased, and called next day and examined the patient. Head subsequently lodged in the house, but as Guirey got no better Dr. Mitchell was called in. Head told Dr. Mitchell that he was an M.R.C.S., and believing Head was qualified he would not interfere with the case. Subsequently Head left the house, and Dr. James Wright Hill was sent for, and found deceased in a collapsed condition. Dr. Hill learned that Head had been treating the patient, but found that he had taken away a prescription he had sent to Mrs. Guirey, and also the medicine deceased had been taking. Mrs. Guirey told Dr. Hill that Head had made up his medicines from the bottles on the sideboard, and on examining these he found that they contained a solution of bicarbonate of soda, a solution of Epsom salts, and some burnt sugar.—Head appeared at the West Ham Police Court on October 3, charged with the manslaughter of Michael Guirey "by gross and improper treatment." After evidence had been given, prisoner (who suggested that the abscess which caused deceased's death could only have been revealed by a *post-mortem* examination) was remanded so that the Public Prosecutor might be communicated with.

Contracts.

Mr. W. Hallgarth will supply drugs to the Thorne Board of Guardians.

Mr. T. W. Williamson, chemist and druggist, Coventry, has been appointed chemist to the workhouse.

Mr. D. Davison, druggist, Fakenham, will supply disinfectants to Walsingham Board of Guardians for the current year.

Messrs. Astler & Co., chemists and druggists, High Street, Rochester, are to supply drugs to the Medway Union Guardians at Chatham.

Messrs. E. Bing & Son, chemists, Canterbury, have obtained the supply of surgical-dressings to the Canterbury Board of Guardians for the ensuing year.

The Boston Board of Guardians have accepted the tender of Messrs. Gilliat (Limited), for quinine at 1*s.* 9½*d.* per oz., and for Jeyes' sanitary soap at 27*s.* 9*d.* per cwt.

Messrs. Hickman & Co. (Limited) have obtained the supply of surgical appliances, medicines, and chemists' goods to Bridgwater Workhouse for the next half-year.

At a meeting of Medway Board of Guardians two tenders for the supply of drugs to the workhouse were discussed. Messrs. Willows, Butler & Thompson, of Aldersgate Street, E.C., had tendered at 25*l.* 4*s.*, and Messrs. Ostler & Co., chemists, Rochester, at 25*l.* 2*s.* 2*d.* The latter tender was accepted.

Chemists' Licences.

A further list of off wine-licences granted is appended:—

Mr. W. Bratley, chemist and druggist, Market Place, Pontefract.

Mr. T. C. Benks, chemist and druggist, Carlton Street, Castleford.

Mr. T. J. Kendra, chemist and druggist, 89 Linthorpe Road, Middlesbrough.

An off wine and spirit licence has been granted to Mr. Geo. E. Marfitt, chemist and druggist, Leicester.

Fire.

An outbreak of fire occurred on October 8 at the back of the shop occupied by Messrs. Townson & Mercer, chemical-apparatus manufacturers, 89 Bishopsgate Street Within, E.C. The flames were promptly attacked by a hand-pump, and the outbreak was extinguished in the course of a few minutes. The damage was confined to the partial destruction of a quantity of stock.

Notes from Birmingham.

A plethora of lady dispensers is indicated by the numerous advertisements appearing in the local papers.

The sale of disinfectants in the Aston district has kept the chemists very busy for some weeks owing to an unusual epidemic of foul smells arising from defective drainage.

The temporary secretaryship of the Chemical Club has been accepted by Mr. H. Silvester, analyst for West Bromwich, who announces that a paper on the Sale of Food and Drugs Acts will be read on November 12, 1901, by Mr. John White, the Derby analyst.

At the Mason College *conversazione* held on Tuesday last pharmacy was meagrely represented, in spite of the fact that the local Association is a subscriber. The new materia-medica museum was open, and operations were conducted showing some pharmaceutical principles.

Broad Street Corner and Easy Row seem to be a happy hunting-ground for burglars. Once more Messrs. Bellamy & Wakefield, chemists, and Messrs. Southall Brothers & Barclay (Limited) have been visited, but the loot was not of the kind required, and nothing was taken.

The question of weighing expensive articles on paper calls for some ventilation amongst chemists. In other callings the practice has become of importance, and is being abandoned. The Smethwick local authorities are about to force the matter and have a legal settlement.

Messrs. Freeman and Coslett, whose pharmacies were visited by bulls some days ago, will not get much consolation from the owners if a correspondent to the *Birmingham Daily Post* is right. He says there can be no legal liability if it is proved that sufficient care was used in driving the animals.

The quarterly examinations of the Pharmaceutical Society have again brought their surprises. One gentleman who has presented himself for the Minor on seven occasions and failed on the first day's work, passed both first and second day, but failed on the aggregate! Birmingham students have done remarkably well, and it is whispered that one got through with the least number of marks that it has ever been the lot of a candidate to succeed with.

London Sewage.

In the course of his annual address to the L.C.C. on Tuesday the Chairman said the Main Drainage Committee had dealt with 81,679,630,537 gals. of sewage during the year. Experiments were still being made in the bacterial treatment of sewage at the outfall works. The suspended matters in the sewage were practically entirely removed as the result of the bacterial treatment, but the microbes producing the chemical changes passed through the coke-beds in practically unaltered numbers. The committee were considering whether, under all circumstances, the benefits derivable from the bacterial treatment would justify the very heavy outlay involved in the proposal.

Got Another Fortnight.

The man Taylor, whose sentence of a month's imprisonment for obtaining money by fraud from a Bulwell shopkeeper, was chronicled in our issue of September 14 (page 456), appeared at Nottingham on October 5 to answer a similar charge. He had obtained 5s. 6d. from Louisa Butler, an Ilkeston shopkeeper, by inviting her to become agent for "Taylor's headache and neuralgia powders," offering as an inducement to present her with 1,000 printed paper-bags free. She paid 5s. 6d. on account, but received neither powders nor paper bags. Prisoner got another fourteen days with hard labour.

The Extermination of Ship Rats.

In the course of the report presented by Dr. Collingridge, the late medical officer of health for the Port of London, on the work of port sanitation during the past half-year, reference is made to the connection between ship-borne rats and plague. Many experiments have been made on board ship and in the docks for demonstrating the best means of destroying the rats. In one case sulphurous-acid gas was pumped into the hold of a steamer in ballast, and the result

was that over 300 dead rats were found. For the destruction of rats on board ship by means of carbonic oxide an apparatus has been designed and constructed by Dr. Haldane, of the Local Government Board, but the report says no practical application on a large scale has yet been made. The extermination of rats by means of traps and poison in the various docks has been continued. At the time of instituting the system the average number destroyed totalled about 1,000 per week. In two months the weekly total was doubled, while during June it was nearly 3,000. During March, April, May, and June 32,000 were killed.

Charges of Theft.

A labourer, named Richard Hayes, has been committed for trial on a charge of stealing a packet of tobacco, value 6d., from the shop of Mr. James Paul Porteus, chemist and tobacconist, Market Street, Carnforth.

Three men were remanded at Brighton, on October 7, on a charge of breaking and entering the shop of Mr. F. Adams, pharmaceutical chemist, at 55 Marine Parade, Brighton, and stealing five bottles of scent, two menthol cones, three tablets of soap, a box of lozenges, three brushes, the contents of hospital-box, some coppers, and various other things.

At Bromley Petty Sessions on October 7, J. Smart, chemist's assistant, was charged with stealing a tin of lobster and some whisky from Messrs. Howard & Co. (Limited). The case for the prosecution was that the prisoner had, since December last, been manager of the drug-department of the stores, earning 2l. 12s. 6d. weekly. On Saturday evening, October 5, one of the directors saw under the prisoner's counter a tin of lobster. The result was that the prisoner was watched, the police were informed, and prisoner, who made up the lobster into a parcel, together with some other articles which he had purchased, was arrested. The evidence of Mr. W. E. Howard, secretary of the company, was to the effect that it was found that Smart had paid for everything in the parcel examined by the police except the lobster. At the police station when searched, a bottle was found in prisoner's pocket which, according to the police-sergeant, he affirmed at first was "a mixture of drugs," but afterwards admitted was whisky he had taken from Howard's Stores. Prisoner pleaded not guilty and elected to be dealt with summarily. Evidence as to his previous good character having been given, prisoner in his own defence explained his possession of the lobster and whisky. The former was on the provision-counter, directly opposite the chemist's counter. In accordance with his usual practice, he on Saturday night went to the various counters to purchase his household supplies. Seeing no assistant at the provision counter he took the lobster, intending to pay for it. He took it openly. The contents of the bottle were mere brandy and whisky dregs. He thought he was doing no wrong in taking these. The Bench found the prisoner guilty and imposed a fine of 20s., which was paid.

On Wednesday, at the Guildhall, before Alderman Sir Reginald Hanson, Bart., I.L.D., Ernest Edward Clark (33), of 14 Radnor Street, Peckham, a porter in the service of Messrs. Barron, Harveys & Co., 6 Giltspur Street, E.C., was charged with stealing 3 lbs. of saline, one bottle of extract of malt, one bottle of lavender-water, and other goods. Mr. E. B. Knight (Messrs. Wontner & Sons), prosecuting, said this was a serious case. The conduct of the accused having caused considerable suspicion, on the preceding day Mr. Roger Harvey, just as he was leaving the premises, called him into his private office, and asked him what he had in his pockets. He (accused) produced a bottle of saline, and some other articles. Mr. Harvey asked him what he was going to do with them, and the reply was that he was going to take them home for his own personal use, and he added that it had been going on for some time. He produced other things, which would be enumerated in evidence. At his house a number of articles were found, including labels, and he told the officer that he had been carrying this sort of thing on for eighteen months. Detective-sergeant Hallan deposed that on the previous evening at 6 o'clock he went to the offices of prosecutors, where he saw the prisoner, and told him he was a police officer. Mr. Harvey gave him in custody. Witness saw him produce a number of articles, and he (witness) found others in his

private box at the warehouse. When the prisoner saw these he said, "Yes, I stole them all except the pills." Witness then took him to the police station, where he was formally charged, when some more goods were found upon him. He then went to the prisoner's house, where he found a quantity of goods that were identified. He took these to the station and showed them to the accused, who said, "Yes; I've been doing this kind of thing for eighteen months." The prisoner was remanded.

The Week's Poisonings.

Only seven poisoning fatalities are reported this week, and in every case but one a scheduled poison was used. The poisons employed were prussic acid (Leicester), vermin-killer (Liverpool), oxalic acid (taken by the cook at a Haymarket hotel in place of Epsom salts), laudanum (Leicester), cyanide of potassium (Hampstead), and aconite (which a domestic servant at Stalybridge obtained from her mistress's medicine-chest). The laudanum in the Leicester case was taken by the wife of a telegraph clerk, who had been accustomed "to take more drink than was good for her." The poison ($\frac{1}{2}$ oz.) was obtained from Mr. Thirlby, of Tyers & Thirlby, chemists, Southgate Street, on the pretence that it was for toothache. The bottle had a red poison-label.—At Kensington, on October 10, the circumstances of the death of Arnold Fairley, an actor, were inquired into. The evidence of a fellow-actor showed that deceased was of a melancholic disposition, and often spoke of being found dead. Henry G. Woodliffe, chemist and druggist, 9 Coleherne Terrace, Earl's Court, W., deposed to selling deceased 12 gr. of cocaine for toothache. He knew deceased as a customer. Later on he came back and said his friend had upset it, and witness supplied him with 12 gr. more. Dr. H. R. Oswald, the Coroner, pointed out to Mr. Woodliffe that cocaine is a Part 1 poison, and it had been sold as a Part 2 one. Further evidence showed that deceased was found dead in bed with a strong smell of gas in the room. The *post mortem* showed that death was due to coal-gas poisoning.—Attempts at suicide have been made with oxalic acid, chlorodyne, a poisonous lotion, and laudanum.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Guardians' Drugs.

In reference to the Sligo case, where the L.G.B. refuse to recoup the Guardians half the cost of drugs supplied, it appears that some of the samples were not sent at all to the analyst, but have since been found in some pigeon-holes at the clerk's office.

The Balrothery Guardians have received a letter from the Local Government Board about the delay in sending samples of drugs for analysis. In the case under discussion the Guardians are not to ask the contractors to replace some defective liq. bismuthi, owing to the time that elapsed before the drug was sent for analysis.

An Assistant's Death.

At Dublin on October 7, the city coroner held an inquest on the body of Henry Leahy (34), an assistant with Messrs. H. Williams & Co. (Limited), store chemists, Henry Street, who died suddenly the previous Saturday night. John Robson deposed that he was a fellow-assistant of the deceased. On Saturday deceased complained of heartburn, and witness gave him a draught of bismuth and pepsin, which he took. He asked for a second draught shortly afterwards, but did not get it. He left for home at 10.40 P.M., and witness did not again see him. Mrs. Mary Leahy, widow of the deceased, deposed that her husband complained of a pain in his chest when he came home on Saturday night. He left the room in which he was sitting, and ten minutes afterwards she found him outside dead. Medical evidence was given that the immediate cause of death was due to syncope, accelerated by heart and lung disease. A verdict was given accordingly.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

A New Start.

Mr. Thomas Yule is opening a new pharmacy, next door to his present one in High Street, Cowdenbeath, with glassware supplied by the York Glass Company (Limited), and fittings by Mr. Grant, of Edinburgh.

Fire.

A slight fire occurred in a chemist's shop in Victoria Road, Dundee, on October 3. The shop was closed, and on the door being burst open it was found that the contents of a waste-paper basket had been ignited by, it is supposed, a spark from a fire. The damage done was trifling.

A Soap-transaction.

In Edinburgh Sheriff Court on October 9, proof was fixed by Sheriff Henderson in an action at the instance of the Gleniffer Soap Company, Paisley, against the Scottish Drug Depot (Limited), manufacturing and dispensing chemists, 16 Nicolson Street, Edinburgh, for payment of 55*l.* 17*s.*, being the price of 5 tons of "second pale" soap alleged to have been sold to the defenders last year. Defenders contend that the pursuers had not implemented their contract, the soap not having been delivered to their requirements, and to enable them to fulfil a sale.

Bridegroom Goes Mad.

An unexpected termination to a proposed civil marriage took place at Ayr on October 3. The parties to the proposed contract were a chemist's assistant from Kilmarnock and a girl aged 19 residing there. The parties, accompanied by their friends, arrived in Ayr in the afternoon, and were proceeding to get married before the Sheriff. On the way down the High Street the bridegroom began to behave in a peculiar manner, and, threatening to commit suicide, went into a chemist's shop and made a purchase, which was subsequently found to be strychnine. Afterwards he went to an hotel, where he again threatened to commit suicide, and the police being communicated with, he was apprehended. On examination by two medical men he was certified to be insane, and was conveyed to Ayr District Lunatic Asylum.

Alleged Unqualified Seller.

John Dewar, jun., an assistant to Mayor's Drug Company (Limited), at 31 Grant Street, Inverness, was charged at the Inverness Sheriff Court on September 26, at the instance of the Pharmaceutical Society, with selling oxalic acid and opium and belladonna liniment, he not being a qualified chemist, and with failing to conform to the Poisons Regulations by neglecting to dispense the liniment in a bottle distinguishable by touch. For the defence, it was urged that accused was only temporarily in charge of the shop when the purchases were made, and he was a friend of the witness to whom he sold the poisons, and who stated that they were for his (the purchaser's) own use. If the prosecution would accept that explanation, accused would plead guilty. The statement was not accepted by the prosecution, and the case will go to proof and be heard on October 16.

William Fyfe.

We have received a number of communications regarding the paragraph which we printed last week about William Fyfe, a chemist's assistant, who engaged himself to more two chemists at once. Between September 24 and October 5 Fyfe was in the employment of a chemist at Paisley, who found him to be not unsatisfactory, but, his suspicions being aroused, he taxed Fyfe in regard to his references, and Fyfe confessed that they were false. He was discharged on October 5, but he returned on Monday, to be sent away again. While in Paisley, Fyfe wrote on September 23, getting the letter posted in Aberdeen on September 30, to one of the chemists referred to in last week's note, excusing himself from not keeping the engagement because he had

contracted a severe cold, and offering to go to him on October 3. He again wrote from Paisley, posting the letter in Glasgow on Sunday, October 6. The letter was in the following terms:—

SIR,—I write to express my regret for what has taken place. I accepted your vacancy, also Mr. ———'s, with the intention of coming, but as yours was the better of the two I accepted it after Mr. ———'s, and lastly, getting a better offer, I accepted it. The main reason all through being the salary, I having to depend wholly on myself for a living.

I am very sorry indeed, but hope that you will take no further action in the matter, as it will ruin me altogether; it is the loss of my present situation in any case. Trusting you will see your way to look over it,

I remain, yours, &c.,

W. FYFE.

The reference that Fyfe has given was to "Mr. Weir, 5 Ashvale Place, Aberdeen," where there is no chemist of that name, but replies were received from Huntly, Alford, Aberdeen, and Inch. It is unnecessary to say anything further about the matter at this time, as it is in the hands of the police. We state these facts as a further warning to our subscribers.

French News.

(From our Paris Correspondent.)

MOTOR CAR ACCIDENT.—A pharmacien of Laval, in Brittany, was the victim of a motor-car accident a few days ago, through the breaking of a spring of the vehicle. He was carried to a hospital in a serious condition.

PHOTOGRAPHY ON THE STAGE.—Amateur photography is the subject of a play just produced at the Bouffes-Parisiens Theatre, Paris. It is a vaudeville in three acts, called the "Soap-shot," and, though to some extent amusing, the joint-authors have added a good deal of plot that would scarcely be approved by Mrs. Grundy. The idea is that two well-to-do men residing in a country town endeavour to relieve the monotony of their existence by amateur photography. Their wives, on the other hand, finding themselves neglected, indulge in flirtations. Developing in the dark-room leads to some amusing incidents, as well as a photograph taken by one of the husbands for the purpose of securing a divorce. Finally, the matrimonial troubles are smoothed over, and photography takes a second place.

PROFESSOR RICHE.—The French Mint, which adds the production of artistic medals, metal plaquettes, and even designs for brooches to its more prosaic business of issuing current coin, has produced a handsome metal effigy of M.



Alfred Riche, the design of which we reproduce, to commemorate his election to the Paris Academy of Medicine. C. & D. readers will remember that M. Riche was connected with the Paris School of Pharmacy for some forty years, and retired from the post of Professor of Chemistry there two years ago, when his friends and former pupils made him a presentation as a mark of their appreciation of his services. M. Riche has also held for many years, and still fills, the post of chief chemist to the French Mint. He presided

last week at the meeting of the Paris Academy of Medicine, and gave a valedictory address on a recently deceased member, Dr. Le Roy de Méricourt, who had seen a good deal of service in the French Navy and colonies.

THE LATE PRESIDENT FAURE.—The question as to whether the late President Félix Faure met with his death by poisoning or not has been occupying the attention of a portion of the French Press. The author of a book of souvenirs on the late President entitled "Propos de Félix Faure," has expressed the belief that he was given cyanide in a cigar. The *Temps* has endeavoured to disprove this in

a long article by a medical authority, the principal argument being that in cyanide-poisoning death follows within two hours at the most, whereas the President's agony was of four hours' duration. Apoplexy is the generally accepted version of the cause of death, and in any case there is probably nothing to be gained by endeavouring to prove a sensational poisoning case that savours of the mysterious crimes of the Middle Ages.

M. BERTHELOT'S GOLDEN SCIENTIFIC ANNIVERSARY is being commemorated by a metal plaquette designed by the engraver Chaplin, which will be presented to the eminent chemist next month by his colleagues of the Institute of France. M. Marcelin Berthelot made his *début* as a chemist in Paris in 1851, as assistant to the chemist Balard. On the front of the plate the *savant's* portrait will be reproduced in profile, and on the back a charming composition will portray M. Berthelot seated at his laboratory table, "Truth" illuminating him with a torch, and the "Patrie" protecting him under a flag and offering him a crown of laurels. This latter idea is inspired by a phrase from M. Jules Lemaître's speech on the occasion of M. Berthelot's reception at the French Academy, in which he said, "Whoever knows you is aware how little you hold to anything that is not of your country and truth."

American Notes.

ALLEGED WHOLESALE POISONING.—A Reuter telegram from New York, dated October 7, announces the arrest at Dayton, Ohio, of a woman named Witwer, on suspicion of having murdered, by poisoning, her four husbands, five of her children, one of her sisters, and four members of different families who had employed her as housekeeper. It is said that the police have found poison in her house.

AMERICAN PHARMACEUTICAL ASSOCIATION.—The final general meeting was held at St. Louis on the morning of September 21, when the officers elected Tuesday were installed. The installation-exercises were simple. Each newly-elected officer made a short speech, in which he thanked the delegates for the honour conferred upon him. Mr. Henry B. Mason, of Detroit, introduced a series of resolutions thanking the members of the Local-arrangement Committee; and so the convention ended, except for an excursion on the Sunday to Graniteville, Mo., by the Iron Mountain Road.

THE ALL-NIGHT PHARMACY is not uncommon in American cities, and in New York, where most things seem to go on during the night as in the day, there are several. It is not often, however, that a suburban drug-store adopts this practice, and so happening across one the other day which advertised the fact that its doors were not closed from Monday morning till Saturday midnight, in the fashionable west end of a northern city, our correspondent inquired how it works. The store is in the midst of a high-class residential district, and employs a day-staff of some twelve hands. A large soda-business is done, though the soda-counter occupies only a quarter of the available counter space. At least half of the store is taken up with the prescription-department, which is a big factor in the business. The night-staff consists of a dispensing clerk, who is on duty from 8 P.M. to 8 A.M., and a boy, who comes on duty at 10 P.M. and leaves at 7 A.M. The clerk, when not waiting upon customers, is engaged in dispensing prescriptions and in making up proprietaries, pills, &c., boxing and packing every-day preparations which are in regular demand. The boy, when not assisting the clerk, is employed in cleaning and dusting the store, cleaning the soda-fountain and its accessories, window and glass polishing, &c. When the day-staff comes on duty at 8 A.M. the store is ready for business, and is as clean as the proverbial new pin, arrears in the dispensary are all worked off, and the day starts with a clear sheet. There is a regular run of customers throughout the night, but of course the trade is not very large. The venture has been in operation for a year, and the proprietor of the store is perfectly satisfied with the results. Much useful work is done during the night-hours in the dispensary, the public appreciate the comfort and security which the enterprise of the druggist enables them to enjoy, and his day-business benefits considerably.

Pharmaceutical Society of Ireland.

COUNCIL-MEETING.

THE Council met at their house, 67 Lower Mount Street, Dublin, on Wednesday, October 2. The President (Mr. George D. Beggs) presided, and the other members who attended were the Vice-President (Mr. Bernard), and Messrs. Grindley, Simpson, Kelly, Baxter, J.P. (Coleraine), Porter, Brown, and Professor Tichborne.

FOR BETTER ATTENDANCE.

Before the minutes of the last meeting were signed, The VICE-PRESIDENT apologised for his absence from the last meeting, which was owing to an accident. He was not surprised that the notice of motion, which he had given for the last meeting, was ruled out of order by the President, after he (Mr. Bernard) had looked into the law bearing on the subject. He wished to explain that his sole object in giving the notice was to obtain a larger attendance of members of the Council, and to prevent abortive meetings; and in his effort to do this he was joined by the President, and, he believed, all the other members of the Council. He quite agreed that the President was right in ruling the notice out of order, as all members of the Council were by law entitled to hold their seats for three years; but he was sorry that the President allowed a discussion to take place on the matter after he had ruled the notice out of order. He thought also, that the notice should appear in the minutes.

The REGISTRAR said he did not mention the matter in the minutes, because he thought the notice should be treated as one that was dropped—not moved at all.

The VICE-PRESIDENT: It was mentioned in the reports of the meeting in the journals.

Mr. GRINDLEY: I think the discussion was quite right. I drew attention to the fact that the notice was illegal. But I am quite at one with the Vice-President as to the necessity for a better attendance of the members.

The VICE-PRESIDENT: Do you think it was right to allow discussion on a matter that had been ruled out of order?

Mr. GRINDLEY: I do not know that it was ruled out of order until after the discussion.

The minutes were then amended by the insertion of a reference to the fact of the Vice-President's notice of motion having been ruled out of order, and were signed.

THE LATE PRESIDENT MCKINLEY.

The PRESIDENT said that since the last meeting of the Council President McKinley had been assassinated. The event was one of which, he thought, they should take cognisance, and he there moved the following resolution:—

That the Council at this their first meeting since the deeply lamented death of the late President McKinley, of the United States of America, desire to place on record their sincere sympathy with the Government and people of the United States, and their horror at the dastardly crime, which has caused profound sorrow not alone in the United States, but also throughout the whole British Empire.

The motion was unanimously passed, and it was ordered that a letter of condolence should be transmitted through the American Consul.

COUNCILLORS RESIGN.

A letter was received from Mr. J. W. Brittain, resigning his seat on the Council.

The PRESIDENT: Mr. Brittain wrote to me explaining very fully his reasons for retiring, and asking me not to put his name forward for re-election.

Another letter of resignation was received from Mr. Johnston Montgomery, of Donegal Street, Belfast. Mr. Montgomery stated that it was not without regret that he relinquished his seat on the Council, but he wished to make room for new blood.

The PRESIDENT said he had received the following letter from Mr. W. F. Wells in reply to the letter which had been addressed to him asking him to reconsider his resignation:—

Dear Mr. President,—I duly received your very kind letter, and can assure you that I am deeply sensible of the honour that my colleagues do me in asking me to reconsider my determination to retire from the Council, and I feel and appreciate deeply the very kind expression of good will contained in your letter on your own

and their behalf. In the face of such an expression it is very hard for me to say "No," but I very much regret I must do so. I take this opportunity of thanking most sincerely you, Mr. President, and my many kind friends on the Council, and the members and associates of the Society who have always supported me and placed such great confidence in me, which I shall ever remember with gratitude. Again thanking you and all, I remain, dear Mr. President, yours very faithfully, W. F. WELLS.

The President said: I need not say that taking these three resignations together we deeply feel the loss of these gentlemen. All that we can do is to initiate the new blood and get them into harness as soon as possible.

MR. BINKS RESIGNS.

A letter from Mr. F. N. Binks, F.C.S., resigned his position of lecturer in theoretical chemistry, as he had accepted an appointment in the laboratory of Messrs. Brady & Martin, of Newcastle-on-Tyne. He expressed his regret at severing his connection with the Society, and returned thanks for the kindness and courtesy with which he had been treated.

The PRESIDENT said they regretted his resignation. Mr. Binks was a splendid man, and the class over which he presided was just getting into good working order. During last year the number of students in it had increased from a very small number to twenty; and the best proof of his good teaching was that two men from his class scored the highest at the last examination.

On the motion of the VICE-PRESIDENT, seconded by the PRESIDENT, the following resolution was passed:—

The Council regret very much their loss of the services of Mr. Binks, which have been most valuable to the Society, and to the students of the Elementary Chemistry School, as exemplified by the great success of his pupils. The Council wish Mr. Binks every success in his new appointment in England.

CORRESPONDENCE.

The REGISTRAR stated that second registered letters, addressed to the following members of the Society had been returned from the Post Office: Messrs. Edward Best, Charles William Brooks, Philip Flood, George Boylan Mackillip, and Robert J. Rousselle.

A letter was received from the Hon. Secretary of the British Pharmaceutical Conference Reception Committee thanking the President and Council for having granted the Committee the use of the Society's house for their meetings. The PRESIDENT said the Council had had great pleasure in doing so.

DONATIONS

were received from the Director of the Missouri Botanical Garden of a copy of the twelfth report of that institution; and from the Director of the Wellcome Research Laboratories of copies of four pamphlets.

On the motion of Mr. KELLY, seconded by Mr. GRINDLEY, thanks were voted to the donors.

SCHOOL ENTRIES.

On the motion of the VICE-PRESIDENT, seconded by the PRESIDENT, it was resolved that entries from students for joining the School of Chemistry be received so that the student shall join on January 1, on April 1, and on October 1, in each year; this regulation to come into force on January 1, 1902.

ELECTIONS AND APPOINTMENT.

On the motion of the PRESIDENT, seconded by Mr. GRINDLEY, Mr. P. P. Lee, of Cavan, was elected a member; and on the motion of Mr. MOFFITT, seconded by Mr. TATE, Mr. Mawhinney, of Belfast, was elected a member.

Mr. Thomas A. Shegog, of St. Mary's Road, Dublin, was appointed lecturer on theoretical chemistry and physics for the term of one year.

Other business having been disposed of, the Council adjourned.

PRELIMINARY EXAMINATION.

The following have passed: F. F. Stafford, Ethel S. McKinney, M. A. O'Callaghan, S. J. Hamilton, A. W. Young, J. Behan, W. Cromie. Seven candidates were rejected.

REGISTERED DRUGGIST EXAMINATION.

At Dublin the following passed: J. T. Devin, A. Warren, and M. B. Widdess. One candidate was rejected.

ANNUAL MEETING.

THE annual general meeting of the Society was held at 67 Lower Mount Street, Dublin, on Monday evening, October 7, at 8 o'clock, Mr. George D. Beggs (President) in the chair. He was accompanied by the Vice-President (Mr. Bernard), the Hon. Treasurer (Mr. Grindley), and by Messrs. Kelly, Batt, and W. Corrigan (members of Council). The minutes of the last general meeting were confirmed. The REGISTRAR (Mr. Ferrall) read letters of apology for inability to attend the meeting from Messrs. J. Turner and Dr. J. C. McWalter.

COUNCIL ELECTION.

The PRESIDENT announced that the following gentlemen had obtained the greatest number of votes, and were consequently declared elected members of Council:—Messrs. Patrick Kelly, John Smith, George H. Grindley, George Brown, Richard Blair (Cork), Henry Vincent Golden (Birr), and James Tate. Messrs. Blair, Golden, and Smith replace Messrs. Brittain, Montgomery, and Wells, resigned.

THE SOCIETY'S SILVER MEDAL.

Mr. John Robert Wilson, of Kingstown, having been called into the Council-room, the PRESIDENT said he had great pleasure in presenting him with the Society's silver medal for his answering at the examinations, which was the best during the last year. He was sure that Mr. Wilson would value the medal as long as he should be in the profession, and that he would deem the present a red-letter day in his career. (Applause.)

PRESIDENT'S ADDRESS.

Mr. BEGGS then said: I regret that I have been unable to prepare an address on any subject of pharmaceutical interest to place before you, and shall content myself by giving you a *resumé* of the work done by the Council during the past year. Before doing so, there are some points, arising out of my report, on which I would like to say a few words. The first, and most important one—and the most vital to the interests of every qualified chemist and to the Society—is the enormous difficulty your Council has in obtaining convictions for breaches of the pharmacy and poison laws throughout the country districts, notwithstanding that the most conclusive evidence may be brought forward, in consequence of the bench being occupied by a magistracy who in most cases are in sympathy with the local traders. I have been informed that in some cases members of the bench had been canvassed. This, gentlemen, is one of the great difficulties that your Council has to contend with, especially in the country districts. In some cases we had even to go twice to the King's Bench before we could get the Magistrates to convict. In the Sligo cases we could only get one conviction, but would not be granted costs. This is the way your Society is hampered in their endeavour to carry out the law; and I fear, unless we get help from some other quarter, it will be a very difficult task to stop illegal compounding and the sale of scheduled poisons by unqualified persons. The enormous expenses entailed in law costs by your Council in the seemingly futile attempts to have the laws respected will more forcibly point this out to you than any words of mine; and this leads me up to the point, What course is open to the Society to see that the provisions of their Acts are properly carried out? We should not be called upon to spend our funds, trying to have the law respected. If Parliament thought it necessary to pass the Pharmacy Acts for the safety of the public, surely it is only reasonable that they should also give means to have their various provisions carried out. If this state of things continues to exist in the country, I think the proper course for us is to report each breach of the law to the Castle, and let them see that the provisions of their Acts are properly carried out. Just contrast the action of the authorities in our cases with any infringements of the different Acts which affect the revenue. The following cutting from one of the daily papers will illustrate with what watchfulness any such infringements are dealt with:—

UNLICENSED SALE OF CIGARETTES.

WARNING TO SMALL SHOPKEEPERS.

To-day, in the Southern Police Court, before Mr. Swift, John O'Brien, who keeps a small shop at Harold's Cross Road, was

summoned at the instance of the Inland Revenue authorities for having sold tobacco in the form of cigarettes without a licence.

Mr. Laurence Keogh, Inland Revenue officer, proved the purchase of the cigarettes at the defendant's shop.

Mr. J. J. Rossiter, Superintendent of Inland Revenues, said the penalty for the sale of tobacco, cigars, cigarettes, or snuff without a licence was 50*l*. Persons in the position of the defendant could get a licence for 5*s*. 3*d*., but he neglected to take it, and gave them a great deal of trouble.

Mr. Swift said he would impose the mitigated penalty of 12*l*. 10*s*.

The defendant said he could not pay the fine.

On the suggestion of Mr. Rossiter, Mr. Swift reduced the fine to 1*l*.

In this city we are not so treated, simply because we have here gentlemen occupying the Bench who administer the laws without fear or partiality, with the result that in the cases we have brought forward, we got convictions.

The past season has been an uneventful one for pharmacy in this country. We have had no fresh legislation, as I had hoped we would have had, for to my mind we want some more definite and stringent laws regulating the vested question of

COMPANY-PHARMACY.

and the forming of bogus companies by persons who will not, or could not, qualify, and others who never served one hour at the business, with, perhaps, a share capital of a few pounds each. I do not complain if pharmacy companies be formed, each member of which is qualified, and if each branch shop is managed by a qualified man. This, to my mind, is perfectly legal and fair, but until we get company-pharmacy on these lines, we will always have an unscrupulous and dangerous competition. We are told that there is a dearth of young lads coming to the business. This I quite believe and understand, but what are the inducements held out to them. Only these: long hours, hard study and small remuneration; and when the young man rises to the position of having his own pharmacy, he finds that his study and labour has been almost in vain, for his neighbours—the grocer and huckster—enjoy almost all the rights and privileges that he does, so far as his business is concerned. I hope that we will again approach Parliament, and try and get some further legislation, so that pharmacy and its rights may be properly protected and safeguarded. I am very pleased indeed that one of our members has seen fit to bring forward a notice of motion bearing on this matter.

THE LATE RESIGNATIONS FROM THE COUNCIL.

I regret very much that your Council have lost the services of some of its oldest members through resignation; I allude to Messrs. Wells and Montgomery. Mr. Wells's connection with the Council goes back some eighteen or nineteen years. He always worked for the welfare of the Society, and I assure you your Council used every endeavour to induce him to reconsider his decision. He has been the recipient of some well-deserved compliments both from the Council and the members of the Society, and I cannot help thinking that in his persistent refusal to accede to the wishes of his colleagues he has taken a line of action which has greatly disappointed some of his warmest supporters. In Mr. Montgomery, although not so long connected with the Council, we have lost a most valuable member. His services were always at the call of the Society, and although his attendances at the Council-meetings were not as frequent as we would have wished, nevertheless he did an amount of work that only those on our Committee could be aware of. Any points relating to any case affecting the northern district were always referred to him, the Council knowing that he would give them his careful attention, as his exhaustive reports could bear testimony to his interest in the work of the Society.

OUR COLONIES.

It will be gratifying to our licentiates and members to know that we have received a very satisfactory letter from the Right Honorable Mr. Chamberlain intimating that our diploma will have equal rights with those of the English Society in all the colonies, with the exception of New South Wales, South Australia, and Tasmania.

THE LATE COUNCIL ELECTION.

I wish to say a few words with reference to our elections. I think it is a great pity that the members of our Society do

not take a greater interest in these elections. We frequently hear complaints that the Council does not look after the interests of its licentiates. This I challenge, but it is open to any member to nominate men of their choice to serve on Council; and I greatly wish that these nominations did not remain altogether in the hands of sitting members of Council. I think I express the views of most, if not all, of my colleagues in saying this. I think it a pity that such apathy should be shown in our elections.

THE BRITISH PHARMACEUTICAL CONFERENCE.

There is one other subject that I desire to say a few words about, although it has nothing to do with the work of the Society. It is with reference to the late visit of the British Pharmaceutical Conference; and although I was specially careful that the affairs of the Conference should in no way be mixed up with our Society, beyond my giving permission for the use of our rooms for meetings, still I must say that it ought to be a matter of congratulation, both to the Society as a pharmaceutical body, and to each individual chemist of Dublin and the South of Ireland, that they so fully maintained the traditions of Dublin for its generous hospitality, and giving our visitors a real hearty Irish welcome. The following cutting from one of the English trade journals will bear this out better than any words of mine:—

Much of the success of the gathering was undoubtedly due to the expectation on the part of pharmacists throughout the country that Dublin would live up to its reputation for hospitality, an expectation which brought to the meetings an unprecedentedly large crowd of visitors, and which, we are bound to add, was in the actual fulfilment immeasurably surpassed in every particular.

As I had the honour of giving the Conference the invitation to visit Dublin, it is very gratifying to me that it was such a success. I might mention that our Society was presented by the Conference with some ten very valuable reference books, which are always available to our students.

THE LAW PROCEEDINGS

during the year have been carried out, as I mentioned (with the exception of those in Dublin), with the enormous disadvantage of a magistracy in strong sympathy with the offenders, apparently regarding the Society's efforts to have the law vindicated as "persecution." As a consequence the law costs—as the Hon. Treasurer's statement will show—have by many times exceeded the fines recovered. In the Tullamore cases against P. & H. Egan (Limited) and their unqualified assistant the Society had to go twice to the King's Bench before the Magistrates would convict, with the result that the assistant was fined 5*l.*, without costs, for selling poison (corrosive sublimate), while the company was let off with 1*s.* fine and 1*s.* 6*d.* for non-labelling, their contention being that they were not a "person" within the meaning of the Sale of Poisons Act being overruled by the Court of King's Bench. In Sligo we have been particularly unfortunate in the Magistrates, whose strong sympathies were evidently on the side of offenders. In the one conviction we obtained there no costs would be allowed, and the defendant has since given notice of appeal to quarter sessions. In Dublin it is very different. Here we have in our Police Magistrates justices in whom we have confidence that they will find according to the law and the facts, free from local prejudice. We obtained three convictions against Dublin photographic houses (one being a limited company) for the sale of oxalate of potash and subphocyanide of ammonium.

OUR EXAMINERS.

Your Council, owing to regulations appointing examiners, have lost the valuable services of Dr. Tweedy and Mr. Sparkbrook Brown, both of whom completed the full term of five years. Dr. Henry, LL.D., and Mr. David O'Sullivan, M.P.S.I., were elected in November last, and the Council are to be congratulated on having two such competent and painstaking men as examiners. In the Licence examination Mr. John Smith (now a member of Council) is succeeded by Mr. J. Guiler, M.P.S.I., for the botany and materia medica examination.

OUR SCHOOLS

have been conducted with the usual care and ability by Professor Tichborne and Mr. Kelly, Professor Ashe and Mr.

J. M. Laird. In the practical chemistry class the number of students was sixteen in 1901, as against twenty-six last year; and in the botany and materia medica class the numbers were thirty-nine in 1901, as against thirty-eight in the preceding year. The theoretical class which was started last year has been in work during the past year, and although the number of students attending it is not as large as might be, still the class appears to gain favour, there being twenty students this year as against two last year; and I might here mention that the two candidates obtaining the highest marks in the April and July examination were those that took out this class. I regret to say that the Society has lost the services of Mr. Binks, who had charge of this class, owing to his having obtained an appointment in Newcastle-on-Tyne. Your Council has been fortunate in securing the services of Mr. Sheagob as lecturer in place of Mr. Binks.

THE EXAMINATIONS

have as heretofore been held in accordance with the regulations. We had for the Preliminary examination the following:—

	1900	1901
Candidates...	92	93
Passed ...	57	51
Other examinations ...	11	14
Total registered ...	68	65
„ rejected ...	35	42
Applications for registry	103	107

The following are the statistics of the

Pharmaceutical Licence Examination.

	1900	1901
Candidates ...	61	68
Passed...	24	39
Rejected ...	37	29

Registered Druggists.

	1900	1901
Candidates ...	41	34
Passed...	26	21
Rejected ...	15	13

Pharmaceutical Chemist Examination.

	1900	1901
Candidates ...	13	16
Passed ..	7	9
Rejected ...	6	7

MEDAL.

I am pleased to say that the silver medal has been awarded to Mr. John Ronald Wilson, L.P.S.I., for high answering in the April examination. We had another gentleman also who had obtained marks over the limit of 230, but, unfortunately, the rule laid down only gave the medal to the greatest number of marks over the limit. The gold medal has still to be won.

OTHER PARTICULARS.

Four pharmaceutical chemists died during the past year, two of whom were members; one—Mr. W. B. Murray—had only joined the Society this year; the other—Mr. E. D. Elmes—had been a member for many years. The number on the Register has been further reduced by the erasure of four names of pharmaceutical chemists who had died in previous years but whose deaths had not been certified at the time. Death has reduced the register of chemists and druggists by ten, and that of registered druggists by two.

We have had an increase of our membership of sixteen over last year's, the number being 192 against 176. In the associate druggists' class the numbers are 37, as against 36 last year. The state of the register is now as follows:—

	1900	1901	
Pharmaceutical chemists ...	610	643	increase of 33
Chemists and druggists ...	289	279	decrease of 10
Registered druggists ...	473	492	increase of 19
Pharmaceutical assistants ...	37	46	increase of 9
	1,409	1,460	

The net increase of persons registered is 51. In conclu-

sion, Mr. Beggs thanked the Registrar for his help and assistance in compiling the foregoing statistics.

DRUGGISTS AS JURORS.

Mr. HOLMES said he had been asked by Mr. Batt, druggist, Drumcondra, to inquire of the Council of the Society if they could get him exempted from serving as a juror.

The PRESIDENT replied that the Act of Parliament only applies to pharmaceutical chemists, and the Council has no power in the matter.

THANKS TO THE PRESIDENT.

Mr. BERNARD (Vice-President), in moving a vote of thanks to the President for his address, said the narrative of the bald, plain, unvarnished truth, was such that they could not feel delighted, but it should incite the members to further effort. (Hear, hear.) It was painful to contemplate that out of 1,460 licentiates and druggists in Ireland only a small percentage were members of the Society—something like 209. Outside the Council he had often heard criticism—mild in some cases and violent in others—on the action of the Council; but how could these people expect the Council to fight the battles when they were not supported by the army? (Hear, hear.) It was like sending the officers into the field to fight while the regiments remained behind. From what he knew of the members of the Council, and the work that they did, he could unhesitatingly say that the Council ought to be better supported. (Hear, hear.) It was not by any means pleasant work, to prosecute one's acquaintances and friends and neighbours, spending the money of the Society in the work, and incurring the odium of the country press and of the members of the Society. Personally, it was his duty to go to a country town on this mission, and if he had been James Carey himself (laughter), he could not have been looked upon with more suspicion. If not boycotted, he was totally ostracised, and no one would speak to him at the railway station. (Laughter.) If the critics considered the work that was done without any help from them, they would be more sparing in their comments. (Hear, hear.) If the 1,200 men outside the Society considered they were upholding their profession, or calling, by remaining away from the Society, which could only be supported by the members—well, he did not know what to think of them. The Society did not want their money so much as their moral support, so that they might form one solid body to work together for the benefit of all. (Applause.) It was not so long ago since a member of Parliament asked a member of the Council how many of the profession were members of the Society in Ireland, and he was amazed on being told that not more than one-seventh had joined the Society. He hoped the address of the President would have a good effect in this direction. What they really wanted licentiates of the Society to recognise was, that no good could be done for them unless they helped the Society; and he (Mr. Bernard) thought that for enunciating that fact, and for his conduct in the chair, the President deserved their very best thanks, and he seconded the motion that the same be accorded to Mr. Beggs. (Applause.)

Mr. D. O'SULLIVAN, in supporting the motion, said that the address of the President was a very practical one. One important point to which attention had been drawn, and which should not be lost sight of, was the repeated action of the authorities in reducing the fines on persons convicted of breaches of the Pharmacy Act. That was a matter that directly appealed to all licentiates and druggists as well, and they should be asked to interview their Parliamentary representatives in the various districts to see if something could not be done to stop the practice. (Hear, hear.) He thought sufficient pressure might be brought to bear on the authorities to prevent the fines being reduced. Otherwise it would not be worth the while of the Society to prosecute at all, for such would mean a dead loss to the Society. (Hear, hear.)

Mr. CONYNGHAM said the President had touched on many of the salient points. One of them was, that all branches of the profession ought to be drawn together as one, for the interests of the pharmaceutical chemists and the druggists were common interests. (Hear, hear.) He believed those who had experience of the Society in the past

would be free to admit that the past policy of that body in a great many cases was not such as to inspire confidence in, and to draw together, all the members—that the policy was more calculated to scatter than to gather. They could learn from the past, and what they should consider was how best they could inspire confidence in those who held back from joining, and thus bring to the aid of the Society not alone the moral support of these men, but their money, so that those placed in authority in that Council might be able to wield their power for the benefit of all. (Applause.) He had every hope that what the President had put forward would yield good fruit in the future. (Hear, hear.)

The vote of thanks was passed amid applause.

The PRESIDENT, in the course of his reply, said he trusted that the Society would increase in numbers and would prosper, and that they would have no cause to look back on the past. (Hear, hear.)

FINANCIAL STATEMENT.

Mr. GRINDLEY (Hon. Treasurer) then read a summary of the income and expenditure of the Society for the year ended September 30, 1901, from which we extract the following:—

Income.—Balance in bank at close of last year, 53*l.* 7*s.* 6*d.*; fees from licences and examinations, 549*l.* 6*s.* 6*d.*; subscriptions, 201*l.* 12*s.*; dividends on stocks, 25*l.* 12*s.* 6*d.*; fines and costs incurred, 41*l.*; rents, &c., received, 29*l.* 7*s.* 1*d.* Total, 897*l.* 5*s.* 7*d.*

Expenditure.—Fees paid to examiners and for licences, 191*l.* 8*s.* 6*d.*; salary of Registrar for year, 120*l.*; THE CHEMIST AND DRUGGIST, for journals, 46*l.* 1*s.* 8*d.*; ground-rent, rates, and taxes, 37*l.* 4*s.* 8*d.*; printing and stationery, 25*l.* 9*s.* 1*d.*; furniture and repairs, 114*l.* 14*s.* 1*d.*; law costs, 175*l.* 14*s.* 8*d.*; postage, wages, sundries, 91*l.* 7*s.* 9*d.*; drugs for examiners, fire insurance, coal, gas, &c., 32*l.* 13*s.* 10*d.*; travelling expenses of country members of Council, 22*l.*; stamps on drafts, 8*s.* 4*d.*; balance now due by bank of Ireland, 34*l.* 3*s.* Total, 897*l.* 5*s.* 7*d.* This added to 982*l.* 15*s.* 7*d.* worth of new 2½ per cent. Government stock gave a total money capital of 1,016*l.* 18*s.* 7*d.*

Mr. Grindley, in presenting the statement, said that the Preliminary fees received had increased from 159*l.* 12*s.* last year to 173*l.* 8*s.* this year; but the fees from registered druggists showed a large falling-off—92*l.* 8*s.*, as against 147*l.* Membership subscriptions showed a slight increase—164*l.* 17*s.*, as against 160*l.* 13*s.* It was a deplorable thing to have to state that they had paid in law costs 175*l.* 14*s.* 8*d.* (as against 70*l.* 5*s.* 8*d.* in the previous year), and all they had recovered was 41*l.*

Mr. CONYNGHAM said it was a terrible thing that they had to expend so much money and to recover so little. It was absurd for the Government to give them an Act to carry out—to cast an Act of Parliament upon them—without giving the means to put the Act in operation. (Hear, hear.)

The PRESIDENT: That is my feeling, too.

Mr. CONYNGHAM said the Act of Parliament should be allowed to remain a dead letter, or else the Government must undertake the work at their own expense. It was too bad that in one year 113*l.* odd of the funds of the Society had to be expended in carrying out the law. (Hear, hear.) The accounts had been very carefully kept; everything had been recorded in a manner that was most creditable to the gentlemen who had charge of the accounts, and also to the auditors. (Hear, hear.)

Mr. HOLMES said that he was one of the first members of the Council, and Sir Dominic Corrigan had said that the Society could not work without funds, and that the Government should give some help. Had that been asked?

Mr. KELLY said he was not aware that Mr. Holmes paid his annual guinea to the Society, and if he did not he had no right to speak. (Hear, hear.)

Mr. HOLMES: I am an original member of this Society, and I claim a right to be at this meeting in face of your charges, and I challenge your criticism or your opinion. I will leave it to the Chair. I was at the first meeting of this Society, and have been here ever since, and I never was asked to pay any fees. I will abide by the ruling of the Chair.

The PRESIDENT: At every meeting at which I have been present you have been informed, Mr. Holmes, that you cannot speak or vote at the meetings. (Hear, hear.) I have nothing further to add now. I must rule you out of order. (Hear, hear.)

Mr. HOLMES: I beg your pardon. In what way am I out of order?

The PRESIDENT: I have signified to you what I mean pretty clearly, and I think the less said upon it the better. (Hear, hear.)

Mr. CONYNGHAM proposed the adoption of the accounts.

Mr. KELLY said that the law costs were, no doubt, very high; but it ought to be remembered that no prosecution was undertaken except on the advice of their solicitor, and if their solicitor advised them to go on with a case why, the Council had to do it. (Hear, hear, and applause.) What they hoped for was that the Government would make magistrates do their duty by imposing proper fines—not to act in opposition to the law—and then that the fines would not be reduced. (Hear, hear.) He had great pleasure in seconding the adoption of the accounts.

Mr. HOLMES again interposed, but was suppressed, and the accounts were adopted.

OTHER ACCOUNTS.

Mr. FERRALL (Registrar) then submitted an account of the income and expenditure in the Pharmaceutical School of Chemistry for the past year, from which it appeared that 117l. 12s. had been received in fees, and the expenditure was 118l. 2s. 2d. The account for the School of Botany and Materia Medica showed that there was a balance from last account of 58l. 4s. 8d., and 60l. 18s. had been received in fees; after deducting expenditure there was now a balance of 63l. 7s. 3d.

Mr. CONYNGHAM said that he did not know if they had power to use the funds of the Society in paying the Professor of Materia Medica, and as there was a balance of 63l. from one school why was not that utilised for the purpose?

The PRESIDENT: You cannot take the balance from one school and give it to another. This was a new class, that of theoretical chemistry, and as we find that the fees from the students for the first year did not pay the examiner, we had to guarantee him a certain sum to start it.

Mr. CONYNGHAM put other questions of a friendly character to ensure that the Council was acting within its rights, the PRESIDENT assuring him on the point, and

The accounts were passed.

DIVISION OF THE EXAMINATION.

Mr. H. CONYNGHAM moved the following motion:—

That this meeting suggests to the Council the advisability of having a day class in the School of Chemistry, and also the advisability of having the Final examination divided into two parts.

He put the latter part of the motion first. Young men coming to the profession were, he said, so weighted and engrossed by the examination they had to face that whilst preparing for it they did not learn their business. The result was that after they got qualified they were unfit to take charge of a place of their own. He had three suggestions to make. The first was that the Assistants' examination should count as the first half of the Final examination; the second that the Final should be divided into two parts; and the third was that, if the Council should approve of neither of those plans, the student who was put back should be allowed credit when he presented himself again for the subject that he had passed in, and should only be examined in those in which he had failed. This would relieve the present strain on the time and mind of the student. Most of those present had heard the lucid and instructive address of Mr. Druce at the recent Conference, and doubtless remembered his statement that it was possible to combine a high degree of education with mastery of the daily routine of the chemist's shop. The bulk of pharmaceutical chemists did not get their living out of their higher education, but had to deal with accounts and commercial matters, and they should be educated accordingly.

Mr. HENRY HUNT seconded the motion, and in doing so said that a few years ago he suggested that the Council should grant reward-medals. He was glad to see that that suggestion had been carried out at the Licence examination. He believed that it had stimulated the efforts of students considerably; and he would suggest now, that part of the balance derived from the school funds should be devoted to class prizes at the end of each session. In every teaching institution in the city this was done.

Mr. MICHIE rose to order. The subject of class prizes was not before the meeting.

The PRESIDENT: It is not exactly before us, but we are glad to have the views of any of our members on the matter; more or less it does bear on the present question.

Mr. HUNT thanked the President for his ruling, and, in continuation, said he believed rejected candidates were not told the marks that they had got.

The REGISTRAR: No candidate is told his marks.

Mr. HUNT said he believed it was done formerly. When he himself had been so unfortunate as to fail, he had no difficulty in getting his marks. They were given in the Trinity College and College of Surgeons examinations; and it was a great help to the candidate to know in what he had failed. He had been told that the reason why the marks were withheld was that when they were given the life of the examiner was made a burden to him by the questions that were asked about them by the candidates. That could be squashed by an intimation that the decisions of the examiners were final. In regard to the membership of the Society, he suggested that a circular should be sent out to the licentiates pointing out to them what the Society had done, and what it could do if it were properly supported.

The VICE-PRESIDENT said Mr. Conyngham was leaving them in the dark as to what he wanted done. He had not suggested how the examination was to be divided. He (Vice-President) for one was very anxious to fall in with his views. Mr. Hunt was mistaken in thinking that there was a balance in all the schools. There was a credit-balance in only one—the botany and materia medica school. The school of elementary chemistry was doing very well, and might be a paying one yet. As to the marks, something had to be done to stop the annoyance and almost hrow-heating to which the examiners were subjected when the marks were given to the candidates. The Council were also annoyed with requests from the candidates.

Mr. CONYNGHAM said he only meant to suggest ideas for the Council to work out.

The PRESIDENT said he was sure the new Council would give Mr. Conyngham's suggestions their best consideration; but if they were to follow the lead of the English Society matters would be very different, for at their examinations if a candidate failed in the first subject in which he was examined he was simply told to retire and present himself again after six months. That, he (the President) thought, was better than what Mr. Conyngham suggested, for the candidate was saved the worry and labour of three or four days' attendance, and the examiner was saved the worry of trying to pass him. The examiners for the most part did their level best to pass the men.

The second part of Mr. Conyngham's resolution was, then put and unanimously agreed to.

Mr. CONYNGHAM, in moving the adoption of the first part of his resolution as to the desirability of a day-class in chemistry, say three days a week.

The VICE-PRESIDENT seconded it on condition that there be sufficient students to form a day-class, and so altered it was unanimously agreed to.

COMPANIES AND PATENTS.

Mr. KELLY moved the following resolution:—

That the following clause be added to the Pharmacy Act (Ireland) for the protection of the public and of duly qualified pharmaceutical chemists in Ireland: That no person or persons be permitted to keep open shop for the compounding or dispensing of physicians' or surgeons' prescriptions unless they be trained and educated, and have passed a qualifying examination according to Act of Parliament for so doing.

Some people said that what he proposed was the law already. He said "No." They had heard about the non-enforcement of the existing law by those in authority, and about the evasion of it by unprincipled capitalists. The grievance was a very sore one. He wanted no monopoly. Let patent medicines go to the dogs, but he did ask protection for the trained and qualified pharmacist. What was the state of affairs in Dublin? The newspapers informed them, at a meeting of a bogus company, the chairman was asked, "Is it a fact that you sell drugs 15 or 20 per cent. under cost price?" and his answer was, "We do, but we put it on other things." Patent medicines were a curse to the pharmaceutical profession. They were tricks used to allure

the unsuspecting into the shops of men who had never spent a penny in qualifying for the work that they were doing, and who were trampling on the rights of duly qualified pharmacists. (Hear, hear.) Mr. Kelly, having referred to the way the Junior Army and Navy Stores do business, and to the recent Liverpool case of stolen patents, concluded by regretting that a greater number of licentiates were not present at that meeting. If the Council were not backed up by the licentiates, what could they do?

The PRESIDENT said he had great pleasure in seconding Mr. Kelly's resolution. They must approach Parliament for further legislation in order to have the professional side of their business properly protected. They would allow the patent-medicine trade to go to the dogs. They did not want it. He had patent medicines in his shop, but when people asked for them he told them that they were rubbish. He had a shop full of them, but he did not believe there were ten genuine articles amongst them. But they had to keep them because the public, who were so easily gulled, asked for them. He endeavoured as far as he could to uphold the compounding part of their business, and to keep up the professional status of the licentiates. He strenuously avoided cutting, which was at the root of a great deal of their misery and, he might say, downfall. It was hard that whilst the members of other callings combined, the pharmaceutical chemists seemed to be always at one another's throats.

Mr. MCBIRNIE suggested that when they sold patent medicines they should label them with a statement that they would not be accountable for any result from their use, and that the purchaser bought on his own responsibility.

The PRESIDENT: That has been done by several of our leading pharmacists.

The VICE-PRESIDENT said he was quite in sympathy with Mr. Kelly's proposal, and he wished they could succeed in getting it passed into law. There was no doubt that their business had been attacked by limited companies for advertising purposes. They told the public that they sold their things much cheaper than the pharmaceutical chemists did; but if they sold an item 15 per cent under cost-price they must have an enormous profit on something else. But unfortunately the limited companies were not their only enemies. There were avaricious chemists in their ranks who were not content with having a share of the trade but tried to get it all. They would not succeed. There was also the man who, when he had proved himself utterly ignorant of his business within those walls and left them unqualified, took unto himself six other spirits less educated than himself, formed with them a limited company, and flaunted himself to the world as qualified to compound and to do so with safety to the public. What was the Pharmacy Act passed for? Not to enable them to gain a living, but to safeguard the public by providing qualified men. It was ridiculous to talk about trade monopoly. The Legislature acknowledged that there was a tremendous need for such a body as theirs; but now, in the face of the good work that the Society had done in providing properly qualified men they said:—"Oh, we don't want you, we have got the stores." These were qualified because they were carried on by old pensioners of the Government—men who had spent their lives in doing something else, and who, when they did not get sufficient pensions from the Government, invested their savings in these stores, and undertook in their old age to do what they were never educated for. It would be a great matter if certain houses of old and respectable standing could be got to limit their shareholders to properly qualified persons.

One or two other members having spoken, Mr. Kelly's resolution was put from the chair and passed unanimously.

The proceedings concluded with a vote of thanks to the President.

THE temperature of the acetylene flame is variously estimated at between 2,100° and 2,420° C. An ordinary gas-jet similarly tested gave 780° C.

THE opening gathering takes place on October 30, for which date a smoking concert and social has been arranged. Later on Mr. A. R. Bennett has promised to give a paper on "Some curious points in the laws affecting chemists," which is likely to prove interesting.

Personalities.

ALDERMAN W. M. GOSSAGE, of Messrs. Gossage & Sons (Limited), soap-manufacturers, is mayor-elect of Widnes for the ensuing year.

BROTHER C. BALCOMB, chemist and druggist, of Cheltenham, has been re-elected Treasurer of the Mark Masons' Lodge, Gloucester.

MR. MONROE W. LAUER, of Messrs. Magnus & Lauer, dealers in essential oils, drugs, &c., New York, leaves for a business-trip to Europe on or about October 21. He will spend a few days in London, and may be addressed at the Hotel Cecil.

Business Changes.

MESSRS. JOHN MOSS & CO. have removed their Galen Works business from Wilson Street, New Cross Road, to more central and convenient premises at 23 Tanner Street, S.E.

MR. ALEX. GEORGE, chemist and druggist, has sold his business at 334 Liverpool Road, Patricroft, through Messrs. Tomlinson & Son, to Mr. Henry Sanderson, Wakefield. Mr. George has almost completed his studies for the English double qual.

MESSRS. BOOTS (LIMITED) have taken the shop, No. 60 Kirkgate, Bradford, right opposite to Taylor's Central Stores, and are busily engaged in putting in a new window. "It is stated," says our Bradford reporter, "that Boots (Limited) are now pursuing a policy of waiting for shops to become empty in the neighbourhood of Taylor's stores, and at once pouncing upon them." We said something on the subject a fortnight since.

Marriages.

ADAMS—WILLIAMSON.—On October 3, at St. John's Church, Cheetham, by the Rev. W. H. Barnes, brother-in-law of the bride, assisted by the Rev. H. E. Alderson, rector, Bertram Keith, third son of the late Robert Adams, of London, to Victoria Ethel (Effie), youngest daughter of Mr. W. H. Williamson, chemist and druggist, of 92 Elizabeth Street, Cheetham, and 54 Dantzic Street, Manchester.

HEWLETT—ACKERLEY.—On October 3, at St. Immanuel's Church, Sireatham Common, by the Rev. H. F. S. Adams, James Hewlett, chemist and druggist, Margate, to Rose, youngest daughter of Mr. Joseph Ackerley, West Timperley, Cheshire.

Deaths.

BECKETT.—Suddenly at Corbar Hall, Buxton, on October 3, Mr. J. H. Beckett, of the firm of J. M. Beckett & Son, chemical-manufacturers, Manchester. Aged 45.

BERRIDGE.—At Leicester, on October 3, Mr. Oliver Gillett Berridge, chemist and druggist. Aged 40. Mr. Berridge was found dead in bed, with a bottle containing prussic acid on the sideboard in his bedroom. The medical man who was called in said prussic-acid poisoning was the cause of death.

BOWERS.—At Gorton, on October 6, Mr. William Hadfield Bowers, chemical-manufacturer, Manchester. Aged 81.

DOYLE.—At Radix Village, Mayaro, Trinidad, B.W.I., on September 18, Mr. Edward Doyle, chemist and druggist. Mr. Doyle, who had entered his 80th birthday, for a number of years carried on a drug-business at Mayaro. He leaves a widow and four children, one of whom is Mr. E. A. G. Doyle, M.R.C.S., L.R.C.P., resident surgeon of the Colonial Hospital, Port of Spain, who studied at Westminster Hospital Medical School.

POPE.—On September 21, Mr. John Pope, Llaneller, late of Blaenavon, chemist and druggist.

SPINK.—At Theobald's Road, W.C., on October 6, Mr. Henry Nelson Bowman Spink, chemist and druggist, formerly of Westminster. In his 64th year. The death of Mr. Spink recalls an interesting chapter in the pharmaceutical history of ten years ago. He had been a candidate for the Pharmaceutical Council at various times, but 1890 was the year in which he particularly shone. On that occasion he addressed the annual meeting at Bloomsbury Square, when he gave the Council some good advice. We quote the following passage from our report of May 20, 1890:—

Mr. Spink wanted to see some of their members in Parliament to act for the trade, who, when buttonholed for this or that, would say, "Yes, if you vote for this measure; No, if you will not." They must sink political views.

Mr. Giles: Allow me, sir; we do not want politics, and this is immorality.

The President (Mr. Carteighe) thought Mr. Spink was quite in order; there was a good deal of common sense in what he said, and though they might differ as to whether they could carry out his ideas, they must admire his frankness.

Mr. Spink: It was necessary for the protection of their business that they should have an extended schedule of poisons, and a Bill that should render it criminal for any man not qualified to sell medicines, by prescription or under poison-label, containing a poison in the schedule.

This quotation reveals the man he was—a thorough-going radical. He polled 965 votes on that occasion, or a little more than a third of the total votes. He originally came from Ipswich, and started in business at 3 Marsham Street, Westminster, in 1832, retiring a few years ago. He figured prominently in the public affairs of Westminster, where he acted as a Poor-law guardian, churchwarden, vestryman, Governor of the United Westminster Schools, Commissioner of the Free Public Library, founder and President of the Ratepayers' Association, Chairman of the local School Board, and Chairman of a Sanitary Committee appointed by the Vestry. In 1835 he was elected at the top of the poll to represent Westminster on the London School Board, and at the next election, in 1833, his name again appeared in the same relative position; but he and a colleague had held some meeting in the Pimlico Radical Club—a licensed house—and this being an infringement of the Municipal Act, he was fined and was subsequently unseated. Mr. Spink was a warm opponent of Civil Service trading, and gave evidence before the Royal Commission which dealt with that subject in 1879. He was an able man, and now that he has gone many will regret that no use was made of his abilities in pharmaceutical government.

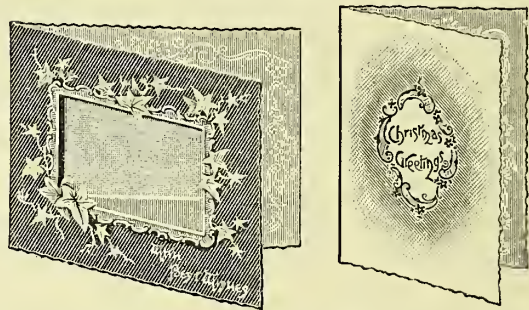
Trade Notes.

TRADE ALMANACKS.—Messrs. James Townsend & Son, Label-printers, Exeter, have sent us specimens of the various almanacks they are issuing for chemists' distribution. "The Purse" almanack has a tuck-in cover in imitation calf, the "Universal" almanack is larger, and is supplied with either twenty or thirty-six pages of matter. The reading-matter refers to recent events, and is illustrated. The "Bouquet" almanack is 3½ inches by 2½ inches with goffered edge, thirty-two pages of matter, and memorandum pages. Samples and prices will be sent by Messrs. Townsend to any of our subscribers who apply for them.

JAPANESE POT-POURRI JARS.—It is three years since we called attention to the exceedingly handsome earthenware pot-pourri jars which Messrs. Potter & Clarke, Artillery Lane, E., had introduced, and since then they have become very popular with the trade, for a few of them put on the chowcase adds considerably to the attractive appearance of the counter, as well as to the contents of the till. A specimen jar which the firm send us this week shows that they have not been content to stay where they started, for the style and quality of the jars now offered are superior, exhibiting good taste in form and colour. The ware of the larger size is, we understand, real Caros stuff, and the jar retails at 2s. 6d. Smaller sizes are not less elegant, and retail at 1s. and 2s. The margin of profit is good, but there should be no difficulty for retailers in high-class districts getting more for the jars.

TO KEEP OUT THE COLD.—The advent of winter makes the re-furbishing of stoves and fire-grates necessary, and chemists who are in need of a shop-stove might with profit peruse the new catalogue of patent hygienic "Syphon" stoves issued by Messrs. S. Clark & Co., of Park Street, Islington, N. The list is excellently illustrated, and the varieties shown make it obvious that the tastes of all (in use or ornament) are studied by the manufacturers. Some of the "Syphon" stoves—as visitors to the trade exhibitions will know—are not only useful, but very attractive.

CHRISTMAS MOUNTS.—Messrs. Geo. Houghton & Son, 89 High Holborn, W.C., have sent us specimens of their new patterns in Christmas and New Year mounts for photographs. The mounts, which are made for all-sized photographs from a midget to half-plate, are embossed with appropriate mottoes. The surfaces of the mounts are either



ivory-white, brown, or green, and there is a variety in the treatment of the margins. Messrs. Houghton publish a special list of these mounts which renders it unnecessary for us to particularise further. The illustrations convey an idea of the style of these goods, and we may further mention that sample boxes of assorted mounts are supplied which should help the sale considerably.

KAY'S ALMANACKS AND COUNTER-BILLS.—Messrs. Kay Brothers (Limited), of Stockport, again offer to the trade supplies of their almanack and family reference-book for 1902. The almanack consists of twenty-four pages enclosed in an attractive cover printed in four colours. Besides the usual calendar it contains a great deal of useful information and instruction regarding the treatment of minor ailments. There is a space on the back of the cover for the name and address of the retailer. Any of our subscribers who wish to get supplies of the almanack should write to Messrs. Kay Brothers at once, as the almanacks are now in preparation. The company also offer supplies of handbills advertising their linseed compound and other specialties. These are in two sizes, suitable for wrapping 2-oz. and 6-oz. bottles, and Messrs. Kay Brothers will send 1,000 of these, with the name and address printed on them, to any subscriber carriage paid.

AERATED-WATER MACHINE.—The Universal Mineral-water Machine Company (Limited), 50 Cannon Street, E.C., have on show a new machine for making aerated waters. The inventor has aimed at obtaining in one movement the three actions needed for producing a finished water: (1) introduction of water and gas; (2) effective aëration; and (3) filling and stoppering of the bottles. A tube of carbonic-acid gas and the water-supply are connected with a flat gun-metal cylinder. Through the centre of the carbonating cylinder is a hollow spindle to which beaters are attached so as to revolve and thoroughly mix the gas and water. Before commencing the operator revolves the handle until a gauge indicates that the cylinder is half full of liquid; a bottle is then placed in the filler, and one revolution suffices to fill and stopper it. From five to eight bottles a minute can thus be filled, the operation being continuous, because as each bottle is filled water and gas enter the cylinder to take the place of the liquid withdrawn. The pressure at which the bottles are filled is about seventy atmospheres. The machine occupies a space of 2 feet square and stands about 4 feet high. Chemists who contemplate going in for making aerated waters should call and see the machine, or write for particulars.

South African News.

(From our Colonial Correspondents.)

BUSINESS CHANGE.—A new pharmacy has been opened at 113 Prince's Street, Port Elizabeth, by Mr. John Williams Couldridge.

THE FOOD AND DRUGS ACT IN CAPE COLONY.—Two Cape Town general dealers were each fined 50s. on September 17, for selling adulterated milk.

RE-ELECTED.—At the annual meeting of the South African Pharmaceutical Association held in King William's Town, Cape Colony, Mr. George E. Cook was re-elected President, and Mr. A. G. Doble, Hon. Secretary.

MOURNING.—The flags of the principal merchant firms and drug houses in Cape Town were flown at half-mast immediately on receipt of the death of President McKinley, and remained so till after the funeral.

NO SATURDAY BUSINESS.—The chemists of Bulawayo announce that in consequence of sports and race-meetings being held on Saturdays, their establishments will in future be closed on Saturdays from 1 to 6 P.M., instead of on Wednesdays, as hitherto.

THE CAPE GOVERNMENT invite tenders for a supply of disinfectants for the service of the Railway Department during the year 1902. Particulars to be obtained at the Railway Stores, Port Elizabeth and East London. Tenders to reach the Controller and Auditor-General, Cape Town, on or before noon on Friday, November 1, next.

TRAVELLERS' PERMITS.—In response to an appeal from the Chamber of Commerce, the Premier (Sir Gordon Sprigg) has promised to inquire into the issuing of permits to travellers over the western system of railways, the Chamber pointing out that the conditions hitherto in operation seriously hampered trade, without any set purpose.

TRADE-MARKS.—Messrs. Osborne, Garrett & Co., of London, have signified their intention of applying to the Registrar of Deeds, Cape Town, to register the word "Kropp" as a trade-mark.—Application has been made by the United Alkali Company (Limited), of Liverpool, for registration of the mark "Chlorosene," for disinfectant soap, disinfectants, disinfecting compounds and preparations, and all other goods included in Class 2.

AGAINST MARTIAL LAW.—At the ordinary monthly meeting of the Cape Town Chamber of Commerce on September 16, a resolution was adopted and subsequently conveyed to the Government to the effect that, while most anxious to support the Imperial Government in any measure tending to bring about an early termination of the war, the Chamber strongly urged that, unless most critical circumstances have arisen, it would be most unwise to introduce martial law into the Cape Peninsula. [It has been.—ED.]

THE FOOD AND DRUGS ACT IN NATAL.—The Natal Government *Gazette* of September 10 contains the text of the Act to amend the law relating to the adulteration and fraudulent sale of food and drugs, Section 7 of Part II. of which provides: "(a) A drug shall be deemed to be sold to the prejudice of the purchaser—(c) If being sold under the name given to a drug in the British Pharmacopœia, it is not of the strength, quality, or purity of the standard prescribed by the British Pharmacopœia; (f) If it is professedly sold as being of any strength or purity, and its strength or purity are not as represented."

TRANSVAAL PROSPECTS.—A business man who has just recently arrived from Johannesburg, in the course of conversation with our correspondent, said that there is no likelihood of the Transvaal opening up this year, and considers that it is highly probable that desultory warfare will continue for many months yet, the Boer means of getting about the country, thereby ensuring mobility, being far from exhausted. The same informant points out that Lord Kitchener's latest proclamation, calling on all burghers to surrender, has met with little or no response, and the campaign may yet be much prolonged.

CAPE PHARMACY BOARD.—An interesting function was observed at the last general meeting of the Pharmacy Board, held in September in connection with the resignation of

the secretaryship by Mr. E. G. Rendell, which office he has held for seven years, his duties in the Colonial Office having so increased as to necessitate this step. At the request of the full Board Mr. Rendell was invited to be present, when the President (Mr. J. A. Mathew), in the name of the donors, asked his acceptance of a presentation clock and bracket as a slight token of their appreciation of his services and a memento of the agreeable time they had spent together officially. Mr. Rendell suitably and feelingly replied, assuring the Board that the pleasure had been mutual. The clock and bracket were of English manufacture in carved oak, an imitation of the clock tower, Westminster, with a peal of chimes for the quarters and deep bell for the hours. A silver plate upon the base was inscribed as follows:—"Presented to Mr. E. G. Rendell by the past and present members of the Colonial Pharmacy Board as a token of their appreciation of his services as Secretary from 1894 to 1901.—Cape Town, August 8, 1901."

THE STORAGE OF COLLODION.—In the Supreme Court on September 17, the Colonial Government sued Messrs. J. O. Smith & Co., of Port Elizabeth, for certain sums said to be due to them in respect of the removal and storage of explosives belonging to the defendants. The explosives in question were stored in magazines belonging to the defendants near Cape Town. When the war broke out in October, 1899, the Government decided that the explosives should be removed. The defendants did not remove them, so the Government did so, and stored them on board a vessel in the Bay. The first sum (350*l.*) was the amount of removal-expenses incurred, and the second (2,164*l.*) for storage. Mr. H. B. Christian, senior partner in the defendant firm, who said he had been in the explosives' business as agent for Nobel's dynamite for twenty-five years, deposed that the article stored was collodion—not dynamite. Moreover, he was not consulted in the matter of the removal or storage at all, and contended that the expenses incurred were excessive and unnecessary. Collodion was not explosive when it was dry. Defendants verbally protested at the Magistrates' office against the removal of the collodion. They could have put the collodion elsewhere. They never dreamt that by explosives the authorities meant to include collodion. The hearing was adjourned.

East Indian News.

OPIUM SHOPS IN CEYLON.—There are sixty-seven opium shops in Ceylon now, according to a return furnished by the Government. This means an increase of ten shops as compared with the number in 1893, while the imports of opium into Ceylon have increased from 14,976 lbs. in 1893 to 23,754 lbs. in 1900.

THEFT OF SODA-WATER BOTTLES.—Four coolies employed by Mr. R. Maclure, chemist and druggist, Mount Road, Madras, were charged at the local police-court with stealing four dozen Codd's patent empty bottles, valued at 12*r.* Three of them were sentenced—two to two months' rigorous imprisonment each, and the third to six weeks' rigorous imprisonment; the fourth was discharged.

CARBOLIC ACID IN CEYLON.—In our issue of September 7 (page 466) we noted that a trusted servant of the Bishop of Colombo died through drinking carbolie acid by mistake. Since then a schoolboy named Joseph Bertram Misso, son of Mr. A. Misso, of the Mercantile Bank of India (Limited), took a dose of the acid when he returned home from school and died at the General Hospital soon after. The City Coroner held an inquiry, and decided that the lad had committed suicide by drinking carbolie acid, which he had got from some irresponsible vendor.

POISONS IN CALCUTTA.—The Calcutta Chief Presidency Magistrate has partly heard a case in regard to the poisoning of a man named Hicks with aconite, sold to him by the vendor for a harmless medicine, which was kept with the aconite in the same box. In reply to the Court, Inspector Hamilton said that shopkeepers like the accused require no licence to sell poisonous drugs, enough of which could be purchased to poison the whole of Calcutta. The case was adjourned, the accused being directed to find bail in 100*r.*, and his personal recognisance for 100*r.*

Australian Commonwealth Tariff.

CABLED messages from Melbourne report the introduction in the Federated House of Representatives by Sir George Turner on October 9 of the first Commonwealth Budget, followed it by the introduction of the Commonwealth Tariff Bill. In his Budget statement Sir George Turner estimated that the taxable value of imports from foreign parts in a normal year will be 21,000,000*l.*, and the revenue from the Customs and Excise will be 8,942,401*l.*, divided as follows:—New South Wales, 3,229,448*l.*; Victoria, 2,613,366*l.*; Queensland, 1,354,047*l.*; South Australia, 684,093*l.*; Tasmania, 353,439*l.*; and Western Australia, 708,088*l.* For the current year the revenue from the different sources was estimated as follows:—From Customs and Excise—New South Wales, 2,360,000*l.*; Victoria, 2,410,000*l.*; Queensland, 1,404,000*l.*; South Australia, 665,000*l.*; Western Australia, 800,000*l.*; Tasmania, 370,000*l.*; altogether 8,000,900*l.* From postal and defence services, 2,330,750*l.* Total revenue, 10,339,750*l.* The expenditure for the coming year was estimated at 3,024,106*l.*, leaving a balance to be returned to the various States of 6,305,644*l.*, divided as follows:—New South Wales, 1,922,491*l.*; Victoria, 1,902,303*l.*; Queensland, 961,131*l.*; South Australia, 570,524*l.*; Western Australia, 653,958*l.*; Tasmania, 302,230*l.* To compensate for the loss of 1,000,000*l.* inter-State revenue, it is necessary to increase the import duties, and the Tariff Bill imposes the following, amongst other duties. We add existing duties as a comparison:—

PROPOSED.	EXISTING DUTIES.
Imported spirits (no allowance for under proof), per gal., 14 <i>s.</i>	12 <i>s.</i> to 15 <i>s.</i> per gal.
Excise on spirits from wine, malt, molasses, or maize, per gal., 11 <i>s.</i>	
Ditto on other sorts, per gal., 12 <i>s.</i> 6 <i>d.</i>	
Beer, in bottle, per gal., 1 <i>s.</i> 6 <i>d.</i>	1 <i>s.</i> 3 <i>d.</i> to 1 <i>s.</i> 6 <i>d.</i> per gal.
Beer, in bulk, per gal., 1 <i>s.</i> Excise, per gal., 3 <i>d.</i>	10 <i>d.</i> to 1 <i>s.</i> 6 <i>d.</i> per gal.
Sparkling wines, per gal., 12 <i>s.</i>	10 <i>s.</i> to 15 <i>s.</i> per gal.
Other wines, bottled, 8 <i>s.</i>	6 <i>s.</i> to 12 <i>s.</i> per gal.
Ditto in bulk, 6 <i>s.</i>	Ditto
Tobacco, manufactured, per lb. 3 <i>s.</i> 6 <i>d.</i>	2 <i>s.</i> 9 <i>d.</i> to 4 <i>s.</i> per lb.
Imported leaf, per lb., 1 <i>s.</i> 6 <i>d.</i>	1 <i>s.</i> to 1 <i>s.</i> 10½ <i>d.</i> per lb.
Excise, 1 <i>s.</i>	
Cigars, per lb., 5 <i>s.</i> 6 <i>d.</i> , plus 15 per cent. <i>ad valorem</i> .	} 6 <i>s.</i> to 7 <i>s.</i> per lb.
Cigarettes, per lb., 5 <i>s.</i> 6 <i>d.</i>	
Sugar, importers, per ton, 6 <i>l.</i>	Refined, 6 <i>s.</i> 8 <i>d.</i> per cwt.; raw, 5 <i>s.</i>
Excise, 3 <i>l.</i> , with a rebate of 2 <i>l.</i> per ton if grown by white labour only.	
Tea, per lb., 2 <i>d.</i> , plus 20 per cent. <i>ad valorem</i> .	3 <i>d.</i> to 6 <i>d.</i> per lb.
Cocoa, per lb., plus 15 per cent <i>ad valorem</i> .	3 <i>d.</i> to 4 <i>d.</i> per lb.
Medicines, 25 per cent.	10 to 25 per cent.

From this comparison it would appear that the existing duties have not been much increased, but we must wait for fuller particulars before judging either way. It is stated that though the maximum *ad valorem* duties amounted to 25 per cent, some of the composite and fixed duties reach 77 per cent, and 100 per cent. Excluding the duties on alcohol and narcotics it is estimated that the remainder of the duties average 30 per cent. We observe in regard to medicines, for example, that New South Wales has hitherto admitted them free; Victoria also had drugs and chemicals, with some exceptions, on the free list. Queensland required 25 per cent., South Australia 10 per cent., and Tasmania 20 per cent., so that the new rate is a decided increase. It is further reported that the Government intend to introduce a system of bonuses to encourage the establishment of new industries, especially on locally smelted iron and locally made machinery, but that has to meet the approval of the Federated House, in which the free trade and protectionist parties are about equal, and the labour party equal to both; so that the decision will lie with labour.

"C. & D." Nursery Rhymes.



Jesse and his Pie.

Jesse the Scornor, sat in the corner,
Hugging his dividend pie,
He put in his thumb, and pulled out a plum,
Saying, "Friend of the Public am I.
Cabinet-making is all very well,
But my aim is the profits to smash
Of pharmacy plutocrats, therefore I'll sell
Their goods to the Public for cash."

Jesse the Fakir, erstwhile cabinet-maker,
But now a Director-in-Chief,
By using his brains, gave the pharmacists pains,
For which they in vain sought relief.
They appealed to the Leaders—who peacefully slept,
While calmly sought Jesse his end,
And muttered, as smiles o'er his countenance crept,
"Why, Bloomsbury's been my best friend."

Jesse the Scornor, sits in his corner,
Piling the shekels up high;
Assistants he mops, and accumulates shops,
As he milks poor old Pharmacy dry.
He settles his Taylors, and ever shows fight,
And through the Parkes Burrows his way,
And is striving to emulate Lipton the knight,
By absorbing the whole of the Day.

Chemists' Assistants' Association.

THE following is the programme for the session from October to December, 1901:—

- Oct. 10.—Inaugural address: the President.
- " 17.—Musical and social evening: 73 Newman Street, W.
- " 24.—Paper: "Coca and Its Alkaloids," W. Garsed.
- " 31.—Impromptu discussion.
- Nov. 7.—Paper: "Natural History of Insectivorous Plants," A. H. Ware.
- " 14.—Debate: "Professionalism or Commercialism in Pharmacy."
- " 21.—Paper: "Scottish Alps," W. L. Howie.
- " 28.—Paper: "Pharmacy in the Far East," T. Edward Lescher.
- Dec. 5.—Annual reunion: the Council Chamber, Holborn Restaurant.
- " 12.—Paper: F. Curry.
- " 19.—Musical and social evening: 73 Newman Street, W.

Observations and Reflections.

By XRAYSER.

The Art of Prescribing,

Dr. Luff tells us, is declining. Inadequate attention, he adds, is given to the teaching of prescribing at our medical hospitals and medical schools. Consequently the practitioner, unable to devise a proper formula himself, accepts the ready-made one which a manufacturer offers him, and prescribes that; and this proceeding Dr. Luff considers degrading to the medical man, who thus "lowers himself to be the mere exploiter of a puffed and probably over-vaunted preparation," and degrading, too, to "the scientifically trained pharmacist, who thus becomes only the medium for handing over such a proprietary article."

And the Patient;

where does he come in? He keeps the whole game going, and, perhaps, has some moral right to be considered, while the vaunting manufacturer, the ignorant practitioner, and the scientifically-trained pharmacist are dividing the contents of his purse amongst them. Suppose, for it is conceivable and has occurred, that his adviser has discovered in the course of his experience that a particular proprietary preparation yields better results in specific cases than any imitation of it which he has been able to devise. Is that doctor to insist on ordering his clumsy and inefficient substitute because some high-minded gentlemen have deduced that it would be "degrading" to him and to the scientifically-trained pharmacist to prescribe Smith & Jones's mixture? The true degradation, it appears to me, is to be such a slave to a false sentiment as to yield to its influence when a suffering client's need is involved. The College of Physicians and the Pharmacopœia Committee of the Medical Council, I may remind Dr. Luff, have in several instances admitted the value of certain nostrums by attempting to concoct similar products, and they have generally degraded themselves by their failures.

Dr. Luff Defines

the art of prescribing as that of "ordering suitable remedies in suitable forms for the treatment of morbid conditions." Very neatly expressed; but is it true that that art, understood in its broad sense, is declining? Perhaps students are not taught that the composition of a prescription is almost on a level with the composition of an oratorio. They may not be enjoined to consider solemnly the "basis," the "adjuvans," the "corrigens," and the "constituents" as they were last century. A century before that the rules of Galen in regard to hot and cold substances were laboriously learned. Opium was cold in the fourth degree, and therefore required a correspondingly hot substance to balance it. That was the "art of prescribing" as our forefathers understood it; it was then a very elaborate business. That art has certainly declined. But I fancy our modern physicians know more of disease, more of the action of medicines, and are able to prescribe more suitable remedies (not always drugs) than their ancestors did.

The Badge Business

has gone off very happily. The black-and-white representation of it in the last *C. & D.* does not do justice to its beauty, especially when it is set off by Mr. Newsholme in the background. "Or, on a cross gules," "a stag lodged on a chief azure," and a "pestle and mortar, or, on a wreath of colours": who would not be President to get behind all that? Mr. Cartezighe's little speech in presenting the badge to the present wearer of it was pleasantly turned even when he had occasion to allude

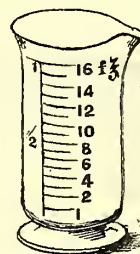
to a "certain periodical" which had dared to smile at this latest expression of Society loyalty. The money collected has proved "more than adequate" for the gold, and platinum, and enamel. What is to be done with the balance? Buttons, an ermine robe, a hat with "fevvers," a court dress, silk stockings, shoes with diamond buckles? These are a few ideas to choose from. Let us have something gorgeous while we are about it. Penny plain, twopence coloured, has been a relative value standard for generations. So never heed those sour-faced puritans who demand a drab world and insist on a gloomy outlook as essential to their notions of dignity.

The Lancet We

"still lives in hopes of the day coming when quacks and patent-medicine vendors shall be licensed." I quote this aspiration from my venerable friend's issue of the 5th inst.; "and by a licence," adds this drastic reformer, "we do not mean any form of diploma, but a tax," such as is imposed on vendors of beer, spirits, and tobacco, it is explained. It will gladden the heart of this medical editor to know that his desires have been anticipated. George III. adopted his suggestion some little time since. Patent-medicine vendors have been required to take out licences since September 1, 1802—just ninety-nine years ago. It is true that "quacks" as such are not specified in the statute. If they were, and if the law were intelligently enforced, what an income the tax would yield! Let me see, how many medical men are there?

Respecting the Milk Measures Convictions,

a northern correspondent, who thinks the view taken by the Maidstone Magistrates was a correct one, writes to point out that milk-vendors who wish to sell four-fifths of a gill of milk for a penny can buy a stamped graduated measure from a chemist, and can therein measure 4 or 8 fl. oz. for a halfpenny or a penny as the case may be. That is true, and I have no desire to discourage the trade in graduates which suggests itself. Only I did not think the Act meant to suppress all measures not professing to be imperial. For instance, if I want to sell nuts a penny a handful, may I not do so unless my hand is stamped, which it may not be? But this is not the comment which my friend's letter specially suggests. He encloses a page from the sundry section of a well-known patent-medicine house, on which appears the annexed illustration of what is described as a "stamped" measure. I am curious to know how that measure got stamped, and what the " $\frac{1}{2}$ " and the "1" on the left-hand side of the graduations opposite the 8 oz. and the 16 oz. indicate. Not half a pint and a pint respectively, surely?



Pharmacy in the U.S.

must mean something different from what it means with us if the statistics collected by the American Pharmaceutical Association are anywhere near accuracy. In the report of the Association's meetings last week I read that the number of "registered pharmacies" [Should be "pharmacists."—ED.] all over the United States is 85,849. There are not 10,000 separate pharmacies in the United Kingdom, and the population of the United States is not yet double our own. I suspect a large proportion of these American pharmacies are the offices of practising doctors who are now obtaining registration as pharmacists on the strength of their medical diplomas. Anyway, if about half the 85,849 are in business on their own account, I should think the average American must either take more physic than is good for him or that pharmacists do an unusual business in soda and cigars.

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Editorial Comments.

A Pointer from Ireland.

As an instance of vitality under exceptionally adverse conditions the Pharmaceutical Society of Ireland is probably unique in the history of pharmacy. Galen's disciples have never been an absolutely united body in Ireland, and it is questionable if they can be as long as there are two grades of qualification and the Irish temperament remains what it is; but in spite of this the Council succeeds in doing much good work. Through good report and ill, it has with great consistency secured recognition of pharmaceutical qualifications from public authorities, and has done more for its licentiates and associates than the similar Council on this side of St. George's Channel, when we reckon the comparatively limited support the former receives and the funds at its disposal. The Irish Council is peculiarly smart in recognising opportunities for interesting Government Departments in the work of the Society, and this has been admirably illustrated during the past year by the inquiry which the Colonial Secretary instituted in regard to pharmaceutical reciprocity. The Council goes upon the principle that if there is any recognition to be extended to pharmacists, or office to be filled by them, Irish licentiates shall have an equal chance with others, and it never waits for the British.

Council to take the lead. This last virtue is admirably shown this week by the motion adopted at the annual meeting in respect to company-pharmacy, for that is what Mr. Kelly's motion amounts to. He proposes to add a clause to the Pharmacy Acts with the object of making it illegal for persons not qualified as the law requires to combine for the purpose of carrying on business as pharmaceutical chemists. The Irish policy outlined in the discussion is that which has been carried into practice in the case of Hayes, Conyngham & Robinson (Limited), where the signatories to the formation of the company, and all the persons actually performing duties for which a pharmaceutical qualification is necessary, are legally qualified, and the public interest in the company extends only to debenture shares, so that the holders have no control whatever in the management of the business. Some hold that this outside monetary interest is a violation of the principle of the Pharmacy Act's, but it is exactly the same in principle as the relation between an individual pharmacist and a bank from which he has an overdraft in order to enable him to carry on business to the best advantage. To this extent, at least, we must give way on the company-pharmacy question; it is utterly futile to expect that the Legislature will sanction attempts to prevent incorporation in the drug-business, and the sooner we get a basis of action which will admit that, the better hopes shall we have of progress. The Irish Society comes forward with its suggestion at a peculiarly appropriate time for British chemists, for the Bloomsbury Council remains silent respecting the Pharmacy Bill drafted last Session. The general idea is that it is dead, and certainly we have met nobody yet who feels that there is the slightest prospect of its introduction into Parliament. Let it remain dead; and now that the winter session is approaching, the Irish proposal may be taken as a good basis for discussion. A definite and simple proposal of this character should afford a clean cleavage of opinion with an insignificant minority on the no-compromise side. Another matter discussed at the Dublin meeting was the difficulty that the Irish Council has in securing convictions under the Pharmacy Acts owing to the extraordinary conduct of provincial magistrates in siding with local defendants. It is notorious that this is an Irish peculiarity, which in its application to faction feuds may be more provocative of heart-burning than law-breaking, but when imported into the administration of laws such as the Pharmacy and Poison Acts, such unjust justice seriously menaces the public safety. The Pharmaceutical Council has an excellent case to put before the Lord-Lieutenant. The officers of the Society have been assiduous in tracking the law-breakers, and tender in warning them of the dangers they incur, before legal proceedings are instituted. With the support of the Royal College of Physicians and other medical bodies in Ireland, the Pharmaceutical Council should be able to convince the Castle authorities that mitigation of penalties is an encouragement to the law-breakers, which is highly detrimental to the public interests, besides being an injustice to pharmaceutical chemists and registered druggists.

Early Closing.

THE report of the Early-closing Committee of the House of Lords, which took evidence last Session in regard to Lord Avebury's Bill, was, with the evidence, published last Saturday. Through the courtesy of the Chairman of the Committee, we were able to comment upon the report in our issue of July 20, and as the present Blue-book contains nothing except the evidence that was not then fully dealt

with, it is unnecessary to occupy much space with the matter now. It will be remembered that evidence on behalf of chemists' and druggists was given by Mr. Charles B. Allen, Vice-President of the Pharmaceutical Society of Great Britain, and by Mr. Peter MacEwan, Editor of this journal; while Mr. Frank D. Chambers, chemist and druggist, Eastwood (representing the Associated Trades of his district), also gave evidence, incidentally being asked about the position of chemists. These witnesses, whose evidence we fully reported at the time, were agreed that the hours which chemists keep open are unnecessarily long, and that chemists as a body would welcome the enactment of Lord Avebury's measure. The Presidents of the Royal Colleges of Physicians and Surgeons assured the Committee that some such measure as Lord Avebury's is needed. Sir John Blundell Maple, Bart., M.P., was the hostile witness. His evidence was a series of short speeches, and it finished up with this characteristic spar between the Chairman and him:—

You have expressed a very strong opinion as to this Bill being unworkable; but you are aware that it passed through both the Select Committee of the House of Commons in 1895 and the Grand Committee on Trade in 1896, and that all the amendments suggested by the Home Office have been introduced?—As you are aware—

Would you just kindly answer my question?—Yes; but with objections, because I objected myself.

But the Committee as a whole passed it?—The majority you had with you.

That is all I want.—But your Lordship has such a natural attraction about you that you can draw people of your own feelings, and you organise things so splendidly that it is more than a simple individual like myself could do to get gentlemen round to follow me and vote exactly as I told them.

The Grand Committee on Trade is appointed by the House of Commons with reference to trade generally, as you know?—But, as you remember, not one-third of those on the Committee attended.

At any rate, the Committee as a whole passed the Bill?—And those who did attend, I must say, were very favourable, before they commenced to sit down, to your opinion, and were guided enormously by you, notably Mr. Jesse Collings, who, though he was there representing the Home Office, did (according to information I had from high officials) go beyond the wishes and desires and opinions of higher authorities.

You give me much too much credit; but, at any rate, you agree that the Bill did go through the Grand Committee?—Yes, it did. We have that in evidence.

The worthy baronet is an uncompromising opponent of legislative interference in matters of this kind, and, as events showed, the Marquis of Salisbury proved to be of his way of thinking, for he persuaded the Committee to delete the recommendation of the Early-closing Bill to the favourable consideration of the House of Lords, replacing this recommendation with an authority for Town Councils to pass provisional orders regulating the closing of shops. There the matter stands at present; and the strange thing is that Lord Avebury has expressed himself as satisfied. Nothing further is likely to be done without the combined action of shopkeepers themselves; and now that we are on the eve of the municipal elections it would be well that Town Council candidates should be asked to state their views on the subject, so as to keep it before the public and encourage early shopping. It is perfectly obvious that we can expect nothing more from the Upper Chamber on the subject, for the report shows the all-powerful nature of the Prime Minister. He was present at two of the thirteen sittings of the Committee at which evidence was taken, and we do not suppose that he had the opportunity of considering the mass of testimony to the need of reform. He was present at each of the private meetings of the Committee at which the report was considered, and his influence was such that he was able to get the Committee to agree to an alteration of the last clause of the report, which stultified all the rest. At the earlier sittings Lord Salisbury appeared

to be an uncompromising opponent of the Maple type, and we take it that his proposition to leave the matter to Town Councils was simply a clever move to prevent his opponents on the Committee getting it all their own way. The Town Council method looks reasonable, but is it workable? The Council candidates should look into it.

New Facts about Oils.

It is well known that variation in the characters of undoubtedly genuine otto of rose is due largely to the kind of petals (red or white) used in distilling, and to Otto of Rose. admixture of sepals with petals, the altitude of the rose-gardens also being contributory. We dealt with the subject somewhat fully in our issue of July 28, 1900, in describing the exhibit of Messrs. Shipkoff & Co., of Kazanlik, at the Paris Exhibition, which contained samples of otto illustrating the effects of altitude, as well as the parts and kinds of flowers used, and Mr. E. J. Parry in the same issue recorded the results of a physical examination of different kinds of otto, typical of classes and sources, selected from the exhibit. Still further light is thrown upon the matter, and regarding the composition of the otto, in a paper published in the September number of the *Berichte*, by Von Soden and Rojahn, chemists to Messrs. Heine & Co., of Leipzig. In previous communications these chemists showed that rose-flowers contain a considerable amount of normal phenyl-ethyl alcohol, and that the essential oil obtained by steam distillation from the leaves also contains this alcohol, but in the proportion of only about 1 per cent. The present researches have been directed to this question from a quantitative point of view, and at the same time the relative amounts of essential oil yielded by the petals and by the sepals of the flowers have occupied their attention, with the result that the authors have discovered that normal phenyl-ethyl alcohol is the most abundant constituent of the perfume of the rose. The quantity of this ingredient stored up in the flowers exceeds by several times that of all the others which are volatile with steam. From the fresh rose-flowers from two to six times as much of this alcohol was obtained as there is in pure commercial otto. These results, as will be seen in the sequel, throw considerable light on the difference in odour between the otto and rose water. The following table expresses the first series of results:—

—	1	2		3		4	
		<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>	<i>a</i>	<i>b</i>
Crude oil in grammes ...	37.5	28.0	2.0	9.5	2.5	23.5	not
Sp. gr. at 30° ...	0.944	0.946	0.897	—	0.894	0.946	dis-
Opt. rot. ...	-0.3°	-0.7°	—	—	—	0.1°	tilled
Congeeing-pt.	28°	29°	—	—	—	25°	
Acid No. ...	3.4	3.0	—	—	—	5.5	
Ester No. ...	19.0	16.0	—	—	—	17.0	

The total crude oil was obtained by careful distillation; the oil floating on the surface of the water (commercial otto of rose) was separated, and the water shaken several times with ether, which was separated and distilled, the residue being combined with the oil first distilled. Samples 1 to 3 were prepared from rose-flowers picked in the morning of June 20, whilst the fourth sample was from flowers of eighteen days later. Each distillation was performed on 50 kilos. of the flowers. No. 1 was on fresh flowers, No. 2 was also on fresh flowers, but the petals (*a*) and the sepals (*b*) were distilled separately; No. 3 was on fresh flowers dried before distillation, the petals and sepals

being also separated; and No. 4 was, like No. 2, on the fresh flowers, with separated petals and sepals.

The bulked crude oil was then steam distilled until no appreciable quantity of otto came over, when the receiver was changed, and the distillation continued until the distillate was clear and practically free from odour. The residue in the distillation-flask consisted chiefly of stearoptene, and possessed no rose odour. The aqueous distillate was then treated with solution of soda, and allowed to stand for six hours. It was filtered with the aid of talc and treated with ether. On evaporation, the ether left almost pure phenyl-ethyl alcohol. From the alkaline solution the "acid" constituents were recovered by acidifying with dilute sulphuric acid, and were found to consist of phenols, acids, and lactones. The following table gives the results of the quantitative examinations of the crude oils. The numbers of the samples are the same as those in the previous table:—

—	1	2a	3a	4a
"Essential oil of rose," per cent. ...	10.0	10.0	20.0	27.0
Sp. gr. at 30° ...	0.845	0.828	0.837	0.866
Congeeing-point ...	23°	27°	26°	18-19°
Phenyl-ethyl alcohol, per cent. ...	60.0	57.0	50.0	54.0
Sp. gr. at 15° ...	1.020	1.019	1.020	1.012
Boiling-point ...	218-219°	218-219°	218-222°	218-220°
Acid constituents ...	7.5	8.0	15.0	3.0
Residue, chiefly stearoptene ...	17.5	15.0	10.0	3.0
Loss ...	5.0	10.0	5.0	13.0

It may be noted that with one exception the sp. gr. of these samples is outside the limits of the British Pharmacopœia, this affording corroboration of the need for reconsidering that standard and changing it at the first opportunity. Von Soden and Rojahn's research opens up a wide field in the chemistry of essential oils. Their distillation waters suggested the examination of several other oils in the same way. Analogues of phenyl-ethyl alcohol—or, at all events, similar bodies—are to be expected in many other oils—*e.g.*, in the water from the distillation of ylang-ylang oil considerable quantities of benzyl alcohol have been found. Considering that it has long been known to chemists that flower-waters differ in the most marked manner from the odours of the oils separated from them, and that it has been stated over and over again that water retains in solution the odorous substances in different proportions from those in the oil, it is surprising that such a research as the one now referred to has been so long delayed. It is, of course, exactly the sort of work that the manufacturer rather than the experimental chemist is best placed for undertaking, and in this regard we must expect the dictates of business, rather than the interests of science, to prescribe lines of research. There is another paper by the same authors in the *Berichte* which forcibly illustrates this statement, for it deals with

the new constituent of oil of lemon, which Mr. H. E. Burgess, chemist to the London Essence Company, discovered and described to the

Chemical Society last session (see *C & D.*, July 6, page 15). Working on enormous quantities of the terpenes of lemon oil Mr. Burgess, by extracting them with sodium bisulphite, obtained a crystalline compound which, when decomposed, yielded an aldehyde which was not citral, but which had an optical rotation of +0° 30', and a refractive index of 1.4314, and boiling-point at 15 mm. of 80° to 85° C., and which was probably identical with an aldehyde present in orange oil. Here, as in many other cases,

the discovery of new bodies in essential oils has been achieved by an English chemist, but owing to the fact that chemists attached to English works are generally more engaged in controlling manufacturing-processes than in research-work pure and simple, they must perforce go slowly, either withholding their work from publication altogether, or venturing a preliminary note, as in Mr. Burgess's case, and giving other workers the cue. Von Soden and Rohahn have taken up the subject, and treating the oil in the manner described by Tiemann, in which the chief portion of the citral is extracted by treatment with sodium bicarbonate and sodium sulphite, the residue being distilled *in vacuo*, they obtained a distillate which, when shaken with sodium bisulphite, yielded an insoluble double compound, identical with that described by Burgess. This was washed with petroleum ether, decomposed with soda, and the resulting body was found to be a mixture of at least two aldehydes, and gave analytical results agreeing well with a mixture of octyl and nonyl aldehydes. This was confirmed by treatment with semicarbazide, and the resulting semicarbazones, separated by fractional crystallisation, were obtained in a pure state, melting at 72° C. (octyl aldehyde), and 89.5° C. (nonyl aldehyde). It is, therefore, clear that lemon oil contains both of these aldehydes, but there is apparently a third. The new aldehyde which was discovered in oil of orange by Stephan was decyl aldehyde, the next higher homologue. It is possible that this also exists to a small extent in lemon oil. The authors point out that the solid compound announced by Burgess as present in lemon oil, has already several times been discovered and described. Burgess gave its melting-point as 145° C. Both Crismer and Theulier have at different times described this compound, and give the melting-point as 143° to 144°, and as 145°, respectively. They also consider that the fluorescent compound observed in the higher boiling fractions of the oxygenated constituents of the oil may be methyl-anthranilate, discovered in oil of lemon by Mr. E. J. Parry (*C. & D.*, June 16, 1900, page 933), the existence of which in lemon oil was said by Schimmel & Co. to be "improbable," but is now confirmed by Heine & Co.'s chemists.

EXAMINATION DIVISION.

It will be observed that the Pharmaceutical Society of Ireland has resolved, on the motion of Mr. H. Conyngham, to consider what can be done to divide the Licence examination so as to make it less onerous to the candidates. This is a step in the right direction which deserves imitation in Bloomsbury. The Minor examination is not less difficult than the Irish Licence examination, although the latter extends over three days; this, however, is rather in favour of the candidates. We could do with a little more of the Irish methods in Great Britain.

LIQUID CAUSTIC SODA.

A demand has recently sprung up amongst manufacturers for caustic soda in the liquid state, and this alkali-makers are meeting by supplying a liquor concentrated to 90° Tw., which is sent out in tank-waggons to the consumer's works. The evaporation of the weak liquor is carried on with economy in a vacuum apparatus at the works of the Castner-Kellner Alkali Company, Runcorn, and has given such satisfaction since it has been in use that several works have adopted the vacuum principle in evaporating liquor down to the crystallising point.

DRAPER-DRUGGISTS' DINING TERMS.

When persons trained and qualified in pharmacy give their services to drapery and grocery companies who have drug departments they seldom realise that they will be treated

exactly like assistants in other departments. One in that position complains that his employers have cut down his dinner-time to half an hour, as if he were a mere counter-jumper! We are not sorry to hear it. Perhaps other assistants who think of associating themselves with drapers will remember to make better dining terms. It is worth their consideration. Even a cigar and a nap after the house-dinner seem to us indispensable.

AMERICAN RECIPROCITY.

A well-informed correspondent of the *Times* in Washington, writing on this subject, relates how the late President McKinley's views on trade-protection underwent modification during the years he was in White House, so that latterly he considered that it was necessary for the integrity of American export-trade that there should be some alteration of the heavy tariff on imported manufactured articles. Mr. McKinley realised that the United States cannot continue to sell its natural produce to countries, such as the United Kingdom, engaged almost exclusively in manufacturing industries, without opening the American markets to their manufactures on the most favourable terms. The Senate was against him, but he hoped by talking to the country about reciprocity to secure, in spite of the Senate, some relaxation of the tariff. Mr. Roosevelt, according to the correspondent, is of the same way of thinking as his predecessor, but his power with the Senate is still an unknown quantity; still reciprocity, or whatever a modified tariff may be called, has to be faced by the American people in the near future.

BRITISH TRADE WITH CHINA.

The Secretary of the China League has been in communication with the Foreign Secretary in regard to the recent Board of Trade announcement that new Chinese import-duties will be levied *ad valorem*, pending their conversion into specific rates. In his letter the Secretary points out the pressing necessity for proceeding with the work of conversion as rapidly as possible, as the change to *ad valorem* rates withdraws the protection which the British merchant enjoyed by the former specific duties, and places the honest trader at a disadvantage. It is notorious, he says, that for some time past a trade has been carried on in some of the "unenumerated" goods by the baser sort of trader, the profits on which are mainly, if not entirely, derived from false invoices and false declarations. The Marquis of Lansdowne, in reply, promises a speedy conversion of the 5-per-cent. *ad valorem* duties to specific rates. Mr. A. Michie also communicates a lengthy memorandum to the China League, pointing out some of the dangers which may be apprehended from the attempt to work an *ad valorem* tariff in China.

KEW BOTANY.

The numbers of the *Bulletin of Miscellaneous Information*, issued by the Royal Botanic Gardens, Kew, for January to September are just published, and contain several interesting items. In the January-March *Bulletin* a list of contributors of plants to the herbarium is given, which supplies a want noted by De Candolle in "La Phytographie." Mr. Bentham told De Candolle it was an impossibility to supply such a list and as something like 2,000 contributors are noted it is no wonder that Bentham shrank from the task. In a further number a description of the familiar leaf-curl disease of plants is given. It is caused by a fungus known as *ascomyces*, and the best protective measure to be adopted in cases where the disease has been present in the preceding season is to spray the leaf-buds just when expanding with dilute Bordeaux mixture. The Director of the Gardens has identified for the War Office specimens of plants which are alleged to have poisoned a number of trek oxen in South Africa as *Chailletia cymosa*. This is a native of the

(5) Employment of civilian nurses. (6) Employment of civilian orderlies. (7) Voluntary civilian hospitals. (8) The Red Cross Society. With regard to matters which, although as important for war as for peace time, are not so closely connected as the preceding with expansion, he deals with the subject of army medical orderlies for whose improvement no mention is made with the great "Scheme." He recalls some of the evil practices of hospital orderlies in the South African War. "In this war," he says, "they robbed, they slept, they got drunk, they neglected their duties, they ate and drank the medical comforts, they stole the stores and sold them to the patients, and pocketed the proceeds." This neglect of the Committee to deal with the orderly question he considers the most scandalous omission of all. Mr. Burdett-Coutts has much more to say on the subject of commanding, on the necessity for the provision of a stationary hospital system, and on the capacity of hospitals. His conclusion is that a great opportunity for reform has been lost, and no official utterance will persuade a watchful public opinion that there is any more reform in the scheme than there is peace in South Africa. In the same issue Surgeon-General J. B. Hamilton criticises adversely the provisions for increase in pay. The scheme, he says, will have to be considerably modified before it is accepted by the medical profession. Dr. Thomas Myles, President of the Royal College of Surgeons in Ireland, also mildly objects to the monetary inducements held out to the Army doctor of the future. He points out (as also does Surgeon-General Hamilton) that after passing his examination for major the candidate may (after eighteen years' service) either retire on a gratuity of 2,500*l.* or go in for another examination. Thus 2,500*l.* at 42 years of age will purchase an annuity of 150*l.* a year. At present after twenty-one years' service an officer on retirement is entitled to a pension of 365*l.* yearly—more than double that held out to him by the new scheme. This, Dr. Myles thinks, is not an inducement to get good men to enter the Service.

A discussion in the *Times* on the alcoholic strength of cider has brought Mr. A. H. Allen, F.I.C., of Sheffield, into the arena. Mr. Allen points out that typical bottled ciders now on the market are usually much richer in alcohol than is generally supposed, and that they can scarcely be classed as teetotal drinks. In the course of his letter Mr. Allen gives the following interesting figures, which indicate broadly the proportions of alcohol (per cent. by volume) contained in various beverages, each kind being, of course, liable to a certain range of strength:—

	CIDER.	Alcohol, per cent.
French, minimum of Pomological Society	...	4
" average of sweet samples	3.8 to 4.1
" " dry "	5.4
" Paris municipal requirement average	...	5 to 6
" " " minimum	...	3
English—Bath and West of England minimum	...	4
" Norfolk, bottled	6 to 9
" Devonshire, bottled (extra dry)	6.7
" Herefordshire, bottled	6.8
American, dry	6.4
" sweet	2.5 to 4

Ordinary draught	45
Burton pale ale...	63
Guinness's XX stout	66
Pilsen lager	35
American lager	28

Bordeaux (vin ordinaire)	7 to 9
Beaune	13
Rüdesheimer	10
Champagne	11 to 13

A.M.S. REFORM.

Mr. Brodrick's scheme for the reorganisation of the Army Medical Service (details of which were given in last week's issue, page 575) have not met with universal acceptance. Mr. Burdett-Coutts, to whom, perhaps, due in great measure this elaborate project, is very scornful in three columns of the *Times* of the "scheme of reform." It is no scheme of reform at all, he says, but a scheme of shelving—politely called "delegation"—of reform to a future body. The scheme starts on the wrong basis entirely. Instead of assuming, as it appears to do, that the Army medical breakdown proceeded from the inferior scientific status of the Army doctor, some notice should have been taken of the fact that therein the trouble lay only in a small degree or not at all. The failure was due to far more important causes, according to Mr. Burdett-Coutts, and he proceeds to enumerate a few of the "things left unreformed." These include (1) the Militia Staff Medical Corps; the Militia Reserve trained in medical duties; the Volunteer Medical Staff Corps. (2) Medical aid for the auxiliary forces. (3) An Army Medical Reserve. (4) Employment of civilian doctors in war-time.

Colonial and Foreign News.

ETHER-DRINKING has become so prevalent in Austria that a Ministerial order was issued on September 20, declaring the indiscriminate sale of ether and ether-mixtures to be illegal.

NEW CUSTOMS TARIFF IN ANTIGUA.—A new tariff came into operation on September 3 repealing the Customs Tariff Act of 1896, but at the same time reimposing the duties that were previously in force. The duty on opium, bang, or ganja has been raised from 10s. to 15s. per lb., and an additional duty of 33½ per cent. on the above remains in force.

CARBIDE-OF-CALCIUM SYNDICATE DISSOLVED.—After a short existence, extending over ten months, the International Carbide-of-calcium Syndicate has been dissolved, and the position of the acetylene gas-lighting industry is practically the same as before the formation of the organisation. The syndicate, which was composed of German, Swiss, Austrian, Swedish, and Norwegian carbide works, was constituted last December, and at that time it was thought the formation of the syndicate would be the means of preventing the excessive over-production of carbide, and bring about an improvement in prices. The capacity of the works last December represented an annual production of 50,000 tons, but the consumption was only one-fourth of that quantity, and the disproportion between output and sales was similar in France and Italy. When the syndicate was formed it was decided to close most of the works, in order to dispose of stocks, but as the organisation has come to an end the effort does not appear to have been successful. It is now proposed to form a fresh syndicate, but it is difficult to see where the success of the undertaking will come in.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

ALL the members of the Council turned up on Wednesday morning, and all looked the better for the holidays. The President wore his new badge for the first time at a Council meeting, and thanked the subscribers to the fund, and also Dr. Paul for collecting the money. Nine links in the chain which is to support the badge are promised by, or in memory of, past Presidents. Dr. Symes and Mr. Cooper spoke of the success of the Dublin Conference. Grants of 147*l.* were made from the Benevolent Fund, and a discussion took place as to whether the Fund would suffer under the new arrangements, by which divisional secretaries were relieved from collecting subscriptions. Mr. Cooper thought the more money they granted in relief the more they would receive from the trade, which Mr. Young denounced as a dangerous doctrine. Mr. Glyn-Jones and Mr. Wootton made suggestions as to facilitating the collection of the money, and Mr. Carteighe hoped to live to see the annuities 75*l.* a year instead of 50*l.* A legacy of 100*l.* has been left by the late Mr. Hohson, of Birmingham, presumably to the Benevolent Fund, which he called "The Chemists' and Druggists' Benevolent Society." Some discussion took place as to supplying a fresh certificate of membership to a Johannesburg chemist in place of one lost during the Boer hostilities, but it is contrary to the practice of the Society. The report of the Board of Examiners for October showed that out of 202 candidates examined in London only fifty-one passed, which seems to show there is something radically wrong with the candidates, the examination, or the examiners.

The monthly meeting of the Council was held on October 9 at 16 Bloomshury Square, W.C. The whole of the members of the Council were present. The proceedings began at 11.30 A.M. by the reading of the minutes of the August meeting, after which

The PRESIDENT referred to a recommendation from the Board of Examiners for Scotland that the addresses of successful candidates be given when publishing the results of examination, and said he saw no difficulty in carrying out the suggestion. In future the addresses as supplied by the candidates will be given in the pass-lists.

THE BADGE.

The PRESIDENT, who wore the new badge of office under his coat, said as that was the first time he had worn the badge officially he tendered thanks on behalf of the Pharmaceutical Society to the large number of subscribers. He was pleased to see the great loyalty to the Society displayed by his colleagues all over the country. There were altogether over eight hundred subscribers, which was in accordance with Dr. Paul's wish that the greater number should show by small subscriptions their feeling that his suggestion was a valuable one. The thanks of the Society were due to the Editor for the great trouble he had taken in the matter, and to the subscribers for the evidences of good feeling.

The SECRETARY explained that the suggestion made by Mr. Butt at the opening of the Session last week that Past-Presidents or their representatives should "give links of a chain to suspend the jewel by, has yielded results." Mr. Cornelius Hanbury, as a kinsman of Mr. Allen, the first President, had written that he will be pleased to present a link to the memory of a "man alike distinguished in the religious and philanthropic movements of his day." Mr. Davenport will also give a link to commemorate his holding the office of President. Mr. P. W. Squire gives a link in memory of his father, Mr. A. L. Savory in memory of his grandfather, Professor Greenish in memory of his father, and Mr. T. Morson in memory of his father.

Mr. COOPER: Did not Mr. Flux, the solicitor, say he would supply a link?

The SECRETARY: No; he only offered to supply a missing link.

Mr. WALTER HILLS said, as the representative of Jacob Bell and Thomas Hyde Hills, he was prepared to supply links in their memory.

Mr. MARTINDALE did not know whether it was intended that a Past-President should supply a link for each year of office, but, if so, he had no doubt they would let those who served several years off lightly. He was prepared to supply a link.

THE CONFERENCE.

Dr. SYMES said he did not know if the delegates to the British Pharmaceutical Conference had reported, and as there was no reference to the report on the agenda he would like to say they had an excellent time in Dublin. They were received by their Irish friends in a hearty manner, and in conversation he gathered that they would be prepared to work with the Society in any matter for the general good of the craft.

Mr. COOPER heartily endorsed Dr. Symes's remarks. They received the heartiest welcome, and had the happiest time it was possible for men to have. He looked forward to a return visit.

The PRESIDENT explained that he was responsible for the omission of any reference to the delegates' report on the agenda. The matter was put off from the last meeting, as many of their friends were still in Dublin, and it had been overlooked since.

ELECTIONS.

A number (not stated) of student-associates and members were elected, some restorations to former positions in the Society were made, and one gentleman was restored to the register of chemists and druggists on payment of 1*l.* 1*s.*, and making the required declaration.

FINANCE.

The report of the Finance Committee was presented. It showed balances on the General Fund account, 2,587*l.* 9*s.* 10*d.*; Benevolent Fund, 428*l.* 10*s.* 7*d.*; Donation account, 5*l.* 5*s.*; Orphan Fund account, 280*l.* 6*s.*; submitted for payment out of the General Fund account, 2,071*l.* 8*s.* 1*d.*; and from the Benevolent Fund, 25*l.* 1*s.* 6*d.* (to pay solicitor and printer). The payments submitted were:—On behalf of the *Journal* 1,074*l.* 6*s.* 3*d.*, salaries 285*l.* 9*s.*, rent 205*l.*, sundries 208*l.* 12*s.* 10*d.*, current expenses 300*l.*

The report, on the motion of the PRESIDENT, was adopted.

The Treasurer was authorised to pay the Jacob Bell scholars 15*l.* each, the first moiety of their scholarships.

BENEVOLENCE.

The report of the Benevolent Fund Committee was then considered in committee, after which

The VICE-PRESIDENT asked if the Secretary would give the Council a statement of the amount received during the year for the Benevolent Fund.

The SECRETARY said, roughly speaking, there was little difference between the amount received this year and that received at the same time last year. It was true they were about 180*l.* less at the end of the month, but this amount had mostly come in since as a consequence of reminders sent to subscribers. He did not think the income this year would be less than it was last year. He was asking the divisional secretaries to call at their leisure on all registered persons in their district. He thought that now the divisional secretaries had only to collect subscriptions for the Benevolent Fund they would get more money than formerly.

The VICE-PRESIDENT, in moving the adoption of the report, said the Committee had an unusually protracted sitting owing to the large number of applications for relief. His object in getting a statement from the Secretary was to show that with a possibly diminished income they had to give unusual amounts in grants. He hoped the divisional secretaries would do their very best to increase the subscriptions to the fund, so that in spite of adverse circumstances the amount would be maintained. In October of last year there were 39 annuitants on the fund; four more were elected in December, bringing the number up to 43. Five annuitants have died and one resigned her annuity

during the year, making the number at the present time 37. It was proposed to elect six annuitants in December, and a list of eight deserving cases had been prepared to place before the subscribers, who would no doubt be able to pick out the six most urgent cases. Grants, five of 10%, four of 13%, and one each of 15% and 20%, were recommended to be made.

The TREASURER was afraid the new departure would have an adverse result on the Benevolent Fund. Now that the divisional secretaries were relieved from the necessity of collecting subscriptions, they had not the same opportunity of making personal appeals, which were much more effectual than postal appeals. Postal appeals often went straight into the waste-paper basket. He should be very sorry if relieving the secretaries of collecting subscriptions had the effect of decreasing subscriptions, especially as the increase of the annuitants to forty-three would absorb nearly the whole of the available funds. He did trust their friends in the country would remember the claims of the fund.

Mr. CORDER said it might possibly be that they would have to revert to their grants of 40% a year instead of 50%—(no, no)—because of the increasing number of candidates. Several of the cases relieved by the Committee were persons who should be on the permanent fund. He questioned whether it would not be better to make a greater number happy than stick to the principle of giving each annuitant 50% a year.

Mr. COOPER said the more they gave the more they would have, he was sure. He felt on this matter very keenly, and he was sorry they only gave such small sums in relief. They should make the fund worthy of their business. Since he had been a member of the committee he had passed many sleepless nights when he thought of his own comfortable dinner and bed, and of the miserable five or eight shillings a week they gave to their unfortunate brethren. There was one case which he particularly felt about, and he would be glad if the Secretary would accept a Christmas-box to hand over to the unfortunate individual, so that he might have a pleasant time at Christmas. When the 1868 Act was passed, he was aware they made the fund applicable to the relief of chemists whether members or not, but now that there were more demands on the fund, he questioned whether they ought not to make it benefit solely members of the Society or subscribers. It seemed to him that other people had no more claim on the fund than the man in the street.

Mr. GLYN-JONES suggested they might try collecting small subscriptions to the Benevolent through wholesale houses. He had had experience for some time of that method, and found it answer exceedingly well.

Mr. WOOTTON said some form for subscription should be adopted for those who preferred to pay their accounts through a bank. A good many people did this now, and it was a real convenience to give instructions to a banker to pay periodical sums. If his suggestion were adopted, the Society would have hundreds of pounds passed to its credit on January 1 of each year.

Mr. YOUNG said Mr. Cooper had enunciated a most dangerous doctrine in asking them to spend more money than they received. The fund was solvent at present, but he feared for it if such a suggestion were adopted. Far from feeling a sense of shame at the smallness of the sums collected, he always felt satisfaction that they could give so much to their poorer brethren. Remembering the poverty of the trade, he shared the belief that the Benevolent Fund was very fairly contributed to.

Mr. CARTEIGHE said all this was ancient history, and he felt compelled to throw cold water on the suggestions of his young friends. It was he who proposed that the annuity should be 50%, and the funds had not decreased. He was certain the trade would support them in their expenditure on benevolence. As to the suggestion of giving only to members or subscribers, for God's sake let them be catholic. It was agreed in 1868 to apply their funds equally to chemists and druggists, and they ought to stick to it. He thought their brethren were very good to the fund, and displayed much generosity in donations and legacies. There was no doubt givers intended their money to benefit all registered persons. They must remember, too, that the chemist and druggist who had never contributed was more likely to have been a struggling man all his life. He hoped he should live to see the annuities raised to 75% a year.

The PRESIDENT said it had been a most useful discussion. The collection of members' fees had been taken from the divisional secretaries so as to lighten their burdens, and he was confident the new system would benefit the Fund in the long run. Many of the new divisional secretaries were not fully in work yet, but he was certain they would find no difficulty in collecting money for the Benevolent Fund. The object in relieving the divisional secretaries from collecting members' fees was that they should have a free hand in looking up not only members, but all registered men in their district. They could now go in a friendly way and talk over matters, because, he contended, a divisional secretary should know every man in his district. They had a recent example of the ease in collecting small sums of money in this way.

The VICE-PRESIDENT said he would be glad if the members would take notice of the fact that Alice Heyes, the daughter of an annuitant, and Fanny Moore, the daughter of one of their members, were candidates for pensions from the British Home and Hospital for Incurables. He would be pleased if any member having votes would use them on behalf of these two candidates, who had a special claim on the drug-trade.

The VICE-PRESIDENT formally moved that six annuitants be elected on December 10, which was carried.

The PRESIDENT asked for power to affix the seal of the Society to an indenture of indemnification to the trustees of the late Mr. Hobson, of Birmingham, in reference to a legacy of 100%.

The SECRETARY explained that Mr. Hobson had left 100% for "the Chemists' and Druggists' Benevolent Society for the benefit of the widows and orphans of deceased chemists." There was not much doubt that the Benevolent Fund was intended, but it was necessary that the trustees should be indemnified in case a mistake had been made. The following

DIVISIONAL SECRETARIES

were appointed:—Mr. R. C. Walslow for the Coln Valley division of Yorkshire, Mr. A. S. Dean for the Ilkley division of Yorkshire, Mr. J. G. P. Dyson for the West Halme division of Lancashire, Mr. J. W. Douglas for North Lambeth, Mr. J. S. Turner for the Holborn division, and Mr. J. A. Shacklock for the East division of Wandsworth.

Mr. T. E. Wallis, B.Sc., was appointed assistant-lecturer and senior demonstrator in the Society's school, in place of Dr. Lapworth.

Mr. CARTEIGHE remarking that it was very gratifying to past students of the school to find a past student elected to that post.

LETTERS.

The SECRETARY announced that Mr. O. C. M. Davis (Bristol) had resigned the Redwood scholarship to continue his work at University College, Bristol.

Mr. H. Antcliffe (Sheffield) sent particulars of the work the Sheffield Society is doing in training its students.

The Birmingham University, through its Registrar, asked that its matriculation examination be recognised as an entrance examination to pharmacy.

The Colonial Office acknowledged the receipt of a copy of the draft Pharmacy Bill sent them to show what steps were being taken to promote reciprocity with the colonies.

Mr. DINWOODIE (Johannesburg) asked that he be supplied with a new certificate of membership as a former one had been destroyed.

The PRESIDENT said they have never yet given a fresh certificate of membership.

Dr. SYMES thought one should be given in this case if evidence of the destruction of the other be tendered.

It transpired, however, that the old certificate should have been returned to the Society, as Mr. Dinwoodie had not been a subscriber for some time, and the request was not granted.

Mr. COLEY (Stroud) asked that certain concessions as to borrowing books from the library be made to him. He wishes to borrow several "starred" books.

Mr. GREY, legal adviser to the Foreign Office, thanked the Society for the assistance given him in regard to drafting a poison-law for British Central Africa.

The letters requiring consideration were referred to various committees.

Three pharmaceutical chemists had their diplomas sealed with the seal of the Society.

EXAMINATION MATTERS.

The report of the Board of Examiners for England showed that 13 Major candidates were examined and 3 passed, and of 189 Minor candidates 48 passed. The statistics from Scotland are not yet to hand. It was reported that twenty-eight certificates had been accepted for the Preliminary examination, and it was recommended that a certificate of having passed the entrance examination of the Royal College of Physicians and Surgeons in Ireland be accepted. One from a Cape Colony examining body was to be further considered. The Board of Examiners added as an instruction to the Registrar that they will in future refuse to pronounce on matriculation certificates unless the subjects examined in are specifically stated in the application.

Dr. SYMES: Will the certificates of the Royal College of Physicians in Ireland be accepted in the future?

The SECRETARY: No; it is only accepted in each case.

Some conversation then took place as to the dates of the Council-meetings for 1902, so that correct information could be given in the Calendar. It would be necessary, owing to various circumstances, to alter the dates of the January, April, and October meetings.

This concluded the public business.

EXAMINATIONS IN LONDON.

The Registrar of the Pharmaceutical Society of Great Britain has furnished us with the following list of persons who were granted certificates at the recent examinations in London.

MAJOR EXAMINATION.

Thirteen candidates were examined, and the following three passed:—

Price, Arthur Henry, London
Ringer, Alick Archdale, Peterborough
Williams, David John, London

MINOR EXAMINATION.

One hundred and eighty-nine candidates were examined, and the following forty-eight passed:—

Allen, John Rex, Lichfield	Jones, John William, Neath
Ashkanazy, Albert W., Dartford	Knight, Alfred William Percival, Wincanton
Battersby, Frank, Stockport	Lea, Frederick, Market Drayton
Beken, Frank W., Cowes, I.W.	Lewis, Albert R., Cheltenham
Bower, Arthur, Macclesfield	Morgan, John K., Carmarthen
Bracewell, J. W., Ramsbottom	Newman, Edward C., Southsea
Challinor, S. G., Stoke-on-Trent	Noble, Sam A., Huddersfield
Chambers, Charles W., Goole	Palmer, Ralph, London
Collins, Richard Arthur, Nelson	Parker, Walter John, Grantham
Cottrell, C., Delph, Oldham	Pratt, Robert Rowles, London
Crabtree, A. L., Rochdale	Rae, George Ernest A., London
Elford, Thomas M., Plymouth	Raine, Edwin, Darwen
Fancourt, John B., London	Richards, Shelley, Shaftesbury
Farmer, Sam R., Liverpool	Rogers, Francis E., Newmarket
Fox, Clara M., Newcastle, Staffs	Singleton, R. A. C., Guernsey
Godkin, Archibald Aston, Burton-on-Trent	Smyth, Eshelbert, Exeter
Hadfield, Sidney H., Preston	Stocks, Alfred Booth, Bradford
Hall, James Charles, Blackpool	Thomas, William J. H., Tenby
Hays, Frederick J. A., London	Tilsley, Ethel M., Birmingham
Hill, Arthur Charles, Ellesmere	Todd, George, Oldham
Howorth, C. W., Plumstead	Tredaway, George H., Workop
Jenkins, John A., Bridgend	Turner, Frederick G., London
Jones, Edward G., Llanfyllin	Walsham, William, Gedney
Jones, John Arch, Aberystwith	Wood, Alfred, Bury

EDINBURGH MAJOR EXAMINATION.

The following is an abstract of the papers given to candidates by the Board of Examiners for Scotland on October 4 and 5:—

CHEMISTRY.

(Time—10 A.M. to 1 P.M.)

Six questions only to be attempted, and at least two from Part II.

PART I.

1. Related to arsenic in nature, and preparation of elementary arsenic, arsenic acid, and sodium arsenite. 2. Electrolytic

manufacture of potassium chlorate. 3. How to obtain—(a) magnesium, (b) sulphur, (c) oxygen, from magnesium sulphate. 4. About impurities in commercial bismuth oxynitrate. 5. Describe qualitative analysis of a natural silicate containing alkalies, not decomposed by hydrochloric or sulphuric acid.

PART II.

6. Preparation and properties of acetylene. 7. Preparation of artificial urea, and action of nitrous and nitric acids upon it. 8. Enumeration, formulae, and distinction of the isomeric butyl alcohols. 9. Synthesis of benzaldehyde, and effect of potassium hydroxide and ammonia on it.

PHYSICS.

(Time—2 P.M. to 5 P.M.)

Six questions only to be attempted.

1. Construction and use of Sprengel air-pump, and Sprengel sp. gr. tube. 2. What is meant by atomic volume? How determined, and theoretical significance? 3. What is "absolute zero" of temperature? Mention matters of theoretical interest connected therewith. 4. What is the lowest temperature attained, and how? 5. Mention the fundamental facts turned to account in "wireless telegraphy." 6. Describe apparatus for producing Röntgen-ray photographs. 7. What does $f/32$ mean in connection with a photographic lens? 8. What is interference of light?

BOTANY.

(Time—10 A.M. to 12 NOON.)

1. What are various modes of fruit-distribution in our native flora? 2. Describe gaseous interchanges between a green leaf and the atmosphere on a summer day, and how leaf-structure controls them. 3. General account of N.O. *Leguminosae*.

PRACTICAL.

(Time—3.30 P.M. to 5 P.M.)

1. Make preparations to illustrate structure of specimen A, with sketches. 2. Refer plants B and C to their natural classifications, with reasons. 3. Describe in detail specimen D.

MATERIA MEDICA.

(Time—12 NOON to 1 P.M.)

1. Bearberry-leaves: principal characters and distinction from buchu, box, and cowberry. What are the medicinal constituents and decomposition-products thereof? 2. How is veratrine made? Describe it, with tests. 3. What are source, characters, tests, and chief constituents of prepared storax?

PRACTICAL.

(From 2 P.M. to 3.30 P.M.)

1. Sections of a leaf to show its structure, with drawing and description. 2. Powdered leaf, with admixture, to identify.

Trade-Marks Applied For.

(From the "Trade-marks Journal," October 2, 1901.)

"CARDINAL QUINQUINA" and device (the essential particular), being figure of man in cardinal's robes; for an aperient medicine. By I. A. Voguet, 8 Avenue Victor Hugo, Paris, France. 236,117.

"ZOEZOK" (no claim for "Zoe"); for a gout-medicine. By the Zoezok Company, 107 Strand, W.C. 240,001.

"KALEE"; for photographic, optical, and electrical instruments in Class 8. By Abraham Kershaw, 21 Dorrington Street, Leeds. 240,087.

"PEROTO" for photographic apparatus. By Otto Perutz, Nachauerstrasse 50, Munich, Germany. 240,438.

"EGROL" (no claim for "Egg"); for custard-powders, blanc-mange powders, baking-powders, and egg powders. By F. W. Hampshire & Co., 2 Wood Street, Derby. 239,518.

"LATARIBA"; for foodstuffs. By the Mazawattee Tea Company (Limited), Tower Hill, E.C. 210,529.

"PHOSPHADE" (no claim for "Phos"); for mineral and aerated waters. By Idris & Co. (Limited), 120 Pratt Street, Camden Town, N.W. 240,098.

"FERIGOL"; for detergent for cleaning woollens. By H. I. L. Griffiths, 17 Shaftesbury Avenue, W. 239,816.

"MUNJINA," and label (essential particular "Munjina"); for a tooth-powder. By Mary Place, 94 Redcliffe Gardens, South Kensington, S.W. 239,788.

Legal Reports.

Trade Law.

A Question of Warranty.—At Peterhead Sheriff Court on October 4, Adam Ross Duthie, grocer, Fraserburg, was convicted of having sold 1 lb. golden syrup which contained 18 per cent. of starch glucose. The defence was warranty. It was shown that the syrup, though purchased through Messrs. Crombie & Co., Aberdeen, was manufactured by the Glebe Sugar-refining Company, of Greenock, who, not only in the price list guaranteed the syrup free from chemicals, but supplied it in a cask marked "pure cane syrup." Sheriff Henderson Begg, in respect of no written warranty, imposed a fine of 5*l.*, leaving accused to find his remedy against the manufacturers or their agent. An appeal has been intimated.

What is an Accident?—At the Southwark County Court on October 3, a labourer sought to recover compensation under the Workmen's Compensation Act from Messrs. Harmsworth Brothers (Limited), for injury, which had incapacitated him from following his employment. His duty was to wash out ink-cans with a strong solution of caustic soda, and india-rubber gloves were supplied to protect his hands. These wore out, and though he applied for another pair they were not forthcoming, with the result that he suffered from dermatitis, and his hands became so inflamed that he was unable to continue at work. Mr. Arthur Powell, for the respondents, argued that this case was in no sense an accident. An accident within the meaning of the Act must be something which happened at one time, by one stroke. Judge Addison, K.C., was of opinion that there was nothing in the facts stated that anybody could call an accident in any sense of the words used in the Act, and he found for the respondents, with costs. If, on appeal, this decision should be reversed, he assessed the compensation at 14*s.* 6*d.* per week until the incapacity ceased.

Weights and Measures Acts.

UNJUST SCALES.

AT Witham on October 7, Mr. Robert P. Green, pharmaceutical chemist, High Street, was fined 2*s.* 6*d.* and 8*s.* costs, for having in his possession for trade-purposes two pairs of scales, one unstamped and the other not properly stamped.

AT Liverpool, on October 3, before Mr. W. Crosfield and Dr. Kellitt Smith, Messrs. R. Sumner & Co., wholesale druggists, Thomas Street, were summoned for having in their possession one unjust weighing-machine. Mr. Layton, for the defendants, having admitted a technical offence, the Magistrates imposed a fine of 10*s.* and costs. Dr. Kellitt Smith said he had known Messrs. Sumner's firm for many years, and he could say they were a most straightforward and fair-dealing firm in every way. Mr. Crosfield said he could say the same from a knowledge of a long number of years.

IN a second case, a firm of tea-merchants were summoned for having in their possession an unjust weighing-machine. Mr. Layton, who also defended in this case, called the manager of Messrs. W. and T. Avery, who, he said, were under contract with Messrs. Jones to inspect their machines periodically. The manager admitted that the machine was out, a cracked centre having been found which might be the whole cause of the matter. A fine of 20*s.* and costs was imposed.

County Court Cases.

SPONGE-DEALING.

AT Birmingham County Court, on October 2, an action was brought by Samuel Marcuson, sponge dealer, of 102 Livery Street, Birmingham, against Francis William Ford, 118 Milcote Road, Bearwood, to recover 3*l.* 15*s.* for goods sold and delivered. It was stated that the defendant, who formerly kept a chemist's shop in Ashted Row, in February last agreed to buy 4*l.* worth of sponges from the plaintiff. The latter being unable to write, defendant wrote the order out, together with his name and address, in plaintiff's order-book. Plaintiff had the sponges with him, and left them, but before leaving he bought goods from defendant to the value of 5*s.*, which was to be deducted from the 4*l.* for the sponges. Defendant denied that he ever ordered any sponges. He said he refused to order any, and plaintiff remarked, "Well, if you won't be a customer to me I will to

you," and bought 5*s.* worth of goods. Plaintiff said he had not the money with him to pay, and asked defendant to write his name and address in the order-book so that he might forward the money. Defendant wrote his name and address, but swore that the other writing appertaining to the order was not his. Whilst he went into the dispensing department plaintiff, he said, went off leaving the box of sponges. Defendant subsequently asked him to take them back, and he said he would if defendant would agree to lose his five shillings' worth of goods. Defendant agreed, but the sponges were not fetched away. Defendant's wife said that the writing regarding the order was not her husband's, and a witness called said he remembered seeing the book some time after, and to the best of his knowledge there was only defendant's name and address on the page. The Deputy Judge (Mr. E. Harington) examined the order-book, and said he had not the slightest doubt that the whole of the entry was in the same handwriting. He accepted plaintiff's statement, and gave judgment for him.

DIRECTOR OF "WINCARNIS" AND HIS CREDITORS.

AT the Norwich Court of Record on October 14, before Judge Wyld, Mr. Eversley, Mr. Hill, and Mr. Keefe made applications with respect to Mr. W. Coleman, of Lower Westwick Street, for non-payment of judgment summonses amounting to some 100*l.* The Judge said he had received a not very satisfactory medical certificate to the effect that Mr. Coleman was "under treatment for general debility." Whereupon Mr. Keefe told about a similar certificate produced some two or three weeks ago in the High Court, and on the same day a clerk saw Mr. Coleman spring into a hansom. The clerk got on the cab, which was being driven off at a rapid rate, and served Mr. Coleman with the process, and handed him the fee of 5*s.*, which he was not too ill to take. Evidence was then called to show that the debt was in respect of beer supplied by Messrs. Fordham & Co., brewers. Mr. Coleman was managing director of "Coleman & Co. (Limited)," of Wincarnis (Limited), the Norfolk Hotel (Limited), Chapman & Co. (Limited), The Norwich Vinegar and Distillery (Limited), and also traded as "Newton & Lawrance." Brundall House, his residence, was a large country seat. The Judge said it was perfectly clear that defendant was in a position to pay his debts. He was managing director of no fewer than five companies, in respect of one of which he received 10*l.* per week, could pay, and if Mr. Coleman did not pay he must suffer the penalty. The claims amounted to about 100*l.* in respect of ten summonses, and he should make an order that debtor pay sums amounting in all to 19*l.* 5*s.* per month. Committal orders would be made in each case, but would not be enforced if defendant paid the instalments.

Bankruptcies and Failures.

Re TOM HOLLAND, 174 High Street, Lincoln, Chemist and Druggist.—Messrs. Andrew & Thompson, of Lincoln, solicitors for the trustees under the deed of assignment executed by this debtor, intimate that all claims against the estate must be sent to them by October 26, otherwise they will be excluded from the benefit of the dividend about to be declared.

Re JOSEPH EDWARD LYNDALE, 59 Eastcheap, now or late Managing Director of the Myname Soap Company (Limited).

The first meeting of creditors in this case was held at the London Bankruptcy Court on October 9, before Mr. G. W. Chapman (Official Receiver). The debtor was not present, and it appeared that he has not yet surrendered under the proceedings, which were instituted upon the petition of the London Banking Corporation (Limited). The case was left in the hands of the Official Receiver, to be wound up in the ordinary course of bankruptcy. The public examination of the debtor is fixed for November 15.

Re WILLIAM LEECH, 111 High Street, Waltham Cross, Chemist.

This debtor applied at the Edmonton County Court on October 7 for his discharge. The Official Receiver (Mr. Cecil Mercer), in his report, stated that the receiving order was made on April 26 this year on the debtor's own petition. The liabilities expected to rank were estimated by the debtor at 140*l.* 17*s.* 6*d.*, but proofs of debts actually lodged and probable claims amounted

to 116*l*. 14*s*. 5*d*. The assets were estimated to produce 20*l*. 19*s*, but they had realised 15*l*. 1*s*. 4*d*. No dividend had been, or could, be paid to unsecured creditors. Between August, 1897, and July, 1898, he was manager of the business at Waltham Cross, but in October, 1898, he purchased it from the widow of his late employer for 220*l*.—a sum that was afterwards reduced by 10*l*. The business was entirely a cash trade, and the takings had not averaged more than from 3*l*. to 5*l*. a week. There was still a sum of 63*l*. owing on account of the purchase of the business. The causes of his insolvency were want of capital and bad trade. The business was an old-established one, but it had deteriorated in value in the last few years. The facts reported against the debtor were that his assets were not of a value equal to 10*s*. in the pound; that he had omitted to keep proper books of account; that he had continued to trade after knowing himself to be insolvent; and that he had contracted debts without having any reasonable expectations of being able to pay them.

Judge Tindal Atkinson granted the discharge, subject to a suspension of two years.

Gazette.

Partnerships Dissolved.

Campbell, G., and Barnes, R. W., under the style of Campbell & Barnes, Chilton, Polden, and Ashcott, Somerset, surgeons.

Orme, C. H., Harrison, C., and Ellerton, J., under the style of Charles Orme & Co., Clyde Works, Page's Walk, Bermondsey, S.E., and Holywell Lane, Shoreditch, E., varnish manufacturers; so far as regards C. H. Orme.

Reckless, A., and Curtis, A. E., under the style of Reckless & Curtis, Sheffield, physicians, &c.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDEES.

Duffin, Robert John, Barnoldswick, medical practitioner.

Towler, George Bland, Heath Town, Staffordshire, chemist.

ADJUDICATION.

Duffin, Robert John, Barnoldswick, medical practitioner.

(From the "Edinburgh Gazette.")

SEQUESTRATION.

Mackirdy, Robert Lyle (deceased), The Brae, Lossiemouth, physician and surgeon, and 85 Victoria Street, Rothesay, chemist and druggist. Creditors will meet in the Station Hotel, Elgin, October 11, at 12 A.M. Messrs. Dalgleish & Dobbie, 21 Hill Street, Edinburgh, agents.

New Companies & Company News.

BARROW & WAY (LIMITED).—Capital 20,000*l*., in 1*l*. shares. Objects: To carry on the business of drysalts, importers, manufacturers, general merchants, patent-medicine manufacturers, &c. Minimum cash subscription, 100*l*. The first directors are J. Hall, Colonel Peters, J. Drewett, N. C. S. Conch, E. Wynell-Mayow, E. Barrow, and C. F. Way. Qualification, 5*l*. Registered office, 190 Holborn, W.C.

PARKE'S DRUG-STORES (LIMITED) announce the payment of the dividend for the half-year on the preference shares at the rate of 6 per cent. per annum, less income-tax.

ST. JACOBS OIL (LIMITED).—An abridged prospectus is inserted in this issue by the directors of this newly-formed company, which has acquired the proprietary rights in St. Jacobs oil and Vogeler's nervative compound. Mr. William E. Geddes, who, as the European manager of the Charles A. Vogeler Company, built up a lucrative business in these articles, is the managing director of the company, whose headquarters in future will be in London, with branches in Baltimore, Paris, Toronto, and San Francisco. The business will, therefore, be entirely under English control. The capital of the company is 100,000*l*., and of this 75,000*l*., in 1*l*. shares, is now offered for subscription. Mr. Geddes specially addresses our subscribers through our advertisement pages in quite original style. He takes them into his confidence, telling what he is to make by "this transaction"—5,000*l*. in shares, which will receive no dividend until

10 per cent. has been paid on the ordinary shares, and that that is not an over-sanguine expectation may be judged from Mr. Geddes's statement that the profits of the business in Great Britain alone have reached 14,000*l*. in a single year. Copies of the prospectus may be obtained from Mr. William E. Geddes, 45 Farringdon Road, E.C., and those who want them should apply at once, as the list opens on Monday, October 14 and closes on October 17.

ELECTROLYTIC ALKALI COMPANY (LIMITED).—The first report of the directors of this company, which was formed in November, 1899, with a capital of 500,000*l*., has been issued. The report states that boring operations were commenced upon the company's land at Middlewich in February, 1901, and brine of excellent quality was found. Subsequent operations have satisfied the directors of the satisfactory character of their brine supply. The anticipated results of working have, so far, been realised. The plant laid down up to the present only provides for the manufacture of bleaching-powder and soda crystals. The directors report that their products command a ready market, and add that the demand for them is already greatly in excess of the capacity of the existing plant; they therefore recommend an immediate extension. The profit-and-loss account, covering a manufacturing period of about four and a-half months, shows a revenue from sales (of bleaching-powder and soda crystals) of 5,868*l*.; sundry receipts, including rents, interest, and registration-fees, 200*l*.; stock of goods and materials on August 31, 2,953*l*. The expenditure was as follows:—Fuel, carbons, diaphragms, lime, and other stores, 4,609*l*.; salaries, wages, freight, travelling expenses, patent-fees, rates, taxes, and miscellaneous charges, 3,173*l*., leaving a profit-balance for the manufacturing period of four and a-half months of 1,241*l*.

Winter Session.

Bradford Chemists' Association.

A MEETING of this Association was held at the Royal Hotel, Bradford, on Tuesday night, October 8, the President (Mr. Arthur Hanson) in the chair. There was a good attendance. Mr. HANSON delivered a

PRESIDENTIAL ADDRESS.

After referring to the death of Mr. Rogerson, the President said the Association is in a satisfactory condition, and he appealed to the members to attend regularly and well. Referring to the Reece case, he said he felt sorry the action had been taken by the Pharmaceutical Society, because the Council had plenty to do without prosecuting a man for doing what they all knew was done by some members of the Council; and he believed that, at a time like the present, when local secretaries were doing all they possibly could to obtain new members to strengthen the Society for more united action for future legislation, it was a great pity to give lukewarm and non-members a handle to grasp or a reason for not joining. Some of them might think him rather optimistic when he said he believed that there was a much better future in view for chemists. He thought, however, that the stores had had their day—(hear, hear)—especially so far as regards dispensing and medicinal preparations. The public were beginning to see that a large bottle of cod-liver oil, or other preparation, bought at a low price, was not really cheap after all, because generally there was about 50 per cent. of glass-bottle with the purchase. He was told a few weeks ago by a store-manager that the prices obtained in some stores for dispensing were in excess of those charged by most chemists. He thought many chemists made a mistake by their keenness in wanting to do a large prescribing business. Of course, some chemists could make it pay, and they could not live without it. That was one way of looking at it, but he thought that if one attempted to be a doctor as well as a chemist, he could not complain if the doctors avoided his pharmacy and did their own dispensing. He felt that if a little more attention were devoted to the making and putting-up of their own preparations instead of buying so many preparations ready packed, they would be in a position to recommend them with more confidence than at present. If chemists could show that they could do doctors' dis-

pensing at a reasonable rate, and supply most of the necessary sundries, &c., used by them, he believed the travellers who called upon doctors would find their orders going elsewhere. He did not think that all doctors could be brought to see things in that light, but he did believe that the up-to-date doctors would consider such a proposal favourably. Chemists were not educated to be doctors; they were intended to be chemists, and dispensers of medicines, and he considered that the reason they had not more dispensing was a good deal their own fault. Mr. Hanson then referred to some of Dr. Luff's remarks at the Square last week, and to what Dr. Risien Russell said about dispensing by medical men (*C. & D.*, October 5, page 532), and hoped that in the near future they would have a Pharmacy Bill passed which would benefit them all. (Hear, hear.) Mr. Hanson next spoke of the exceedingly enjoyable Conference at Dublin, and appealed to the members to support the Conference.

Messrs. R. SILSON and WADDINGTON congratulated the President on his excellent address.

Mr. MITCHELL, referring to the tablet question, said the Federation had shelved it again. He thought something should be done. He had had a conversation with a doctor on the subject, and the latter seemed quite surprised when he (Mr. Mitchell) told him that many of the tablets were practically insoluble. With regard to doing business with doctors, Mr. Mitchell quite agreed that they should do that where possible, but they must bear in mind that there were chemists in certain districts where it would be absolutely impossible to deal with doctors, and they had to prescribe. He thought they could spend a profitable evening some time in discussing the prices to be charged to doctors, because if they were going to give things away to doctors what benefit would it be to the chemists. He thought they might agree as to a minimum price to be charged to doctors. (Hear, hear.)

Mr. H. DUNN thought that in many cases the chemist was perfectly justified in prescribing. A person who was ailing could go into a neighbour's house and another totally unqualified person could recommend something. Why should a chemist, who did know something, be precluded from giving some advice? He did not think it paid chemists to go in for the dispensing business with doctors, and he thought that there should be some mutual understanding with the doctors that they should not encroach upon each other's ground. He was pleased with the reference in the President's address to the action of the Society in the recent Reece prosecution. He thought that the Council made a mistake in taking the course they did. (Hear, hear.) Having taken that course, however, they ought to have cleared their own doors of the possibility of any such charge as was made against Mr. Reece being brought against them. He condemned the "indecent attack" upon Mr. Glyn-Jones.

Mr. MARSHALL thought they might do more business with doctors, and agreed with the President on the Reece case. As a district secretary he had come in contact with a large number of chemists, and nearly every one of them passed the same remark with regard to the controversy. He thought the matter had been a mistake from the beginning to the end.

The PRESIDENT, in reply, said he did not think for one moment that chemists would ever give up prescribing. He did not believe that the doctors wished them to cease entirely, and he promised at some future date during the present session to open a discussion or read a paper on this question. (Hear, hear.)

NEW MEMBERS.

Mr. Bernard Rogerson was elected a member, and Mr. Penty an associate, of the Association.

This concluded the proceedings.

Cardiff and District Chemists' Assistants' Association.

A MEETING was held at the Queen's Café on Monday evening, October 7. Mr. A. B. Sparrow was elected President, and Mr. A. S. Swadling Vice-President for the ensuing year. The members of the Executive Committee were re-elected, with the addition of Messrs. J. W. Cooper, D. J. Lewis, and T. J. Williams. Mr. B. Keast was

elected Treasurer, and Mr. T. H. Davies Hon. Secretary. The session was inaugurated on Wednesday evening, October 9, with a dinner at the Queen's Café. Mr. Sparrow occupied the chair, and some thirty members attended. After the usual loyal toasts, the PRESIDENT proposed "The Cardiff and District Pharmaceutical Association," and Mr. A. S. SWADLING gave the toast of "The Pharmaceutical Society of Great Britain." In the course of his remarks he said the Society had not done what it might have in securing the recognition of chemists and druggists as the legal dispensers of medicine. Had it paid attention to that instead of stiffening the examinations it would have been better for the trade. The PRESIDENT thoroughly agreed with Mr. Swadling. At present they grudged the money they gave to the Society, because they did not seem to derive any benefit from it. The Society made them pay expensive fees for examination, and then when they got through left them in the lurch. Recitations and some good music added to the pleasures of the evening.

Halifax and District Chemists' Association.

A VERY enjoyable social meeting was held on Thursday, October 3, wives and friends of the members being present. There was a good muster and a varied musical programme. The principal event of the evening was the presentation by the PRESIDENT (Mr. W. S. Thompson), on behalf of the Association, of a beautiful marble clock to Mr. Gibson Dixon. The occasion of his recent marriage was regarded as a fitting opportunity to recognise his valuable services in organising and working the Trade Section of the Association. Mr. TOM BRIGGS (Sowerby Bridge), as a country member of the Association, spoke of Mr. Dixon's geniality, and appreciated his activities for the good of the Association. Mr. and Mrs. GIBSON pleasingly addressed the gathering in accepting the present. Mr. Parkes (of Messrs. Hearon, Squire & Francis) and Miss Parkes contributed to the success of the evening by vocal and musical selections; and Mr. SILSON (Bradford) spoke on the value of social fellowship among chemists.

Chemists' Assistants' Union.

A GENERAL meeting was held at 60 Paddington Street, W., on October 2, Mr. C. A. Pickering in the chair. The Chairman first announced donations of 11. 1s. each from Messrs. S. Maw, Son & Sons, the Apollinaris Company (Limited), Messrs. Oppenheimer, Son & Co. (Limited), and Messrs. F. Newbery & Son. Messrs. Wyleys (Limited) sent 5s., and two new patrons—Messrs. Idris & Co. (Limited) and Messrs. Armour & Co.—10s. 6d. each. Mr. PICKERING then opened the discussion on the desirability and advisability of amalgamation with the Chemists' Managers' Association. He said this was certainly desirable, but the C.A.U. Rule 21—viz. :—

No qualified member of this Union shall be recommended to sell his services to any company whose directors are not duly qualified chemists

—stood in the way. Mr. Pickering thought the Pharmaceutical Society should endeavour to pass a by-law making it a non-professional act for a qualified man to serve an unqualified capitalist.

Mr. R. E. WRIGHT spoke at some length in favour of the proposed amalgamation and of expunging Rule 21.

It was then proposed by the PRESIDENT—

That this meeting is of opinion that the amalgamation with the Chemists' Managers' Association is very desirable, provided the majority of members agree to the abolition of Rule 21.

This was seconded by Mr. WRIGHT, and carried unanimously. On the proposition of Mr. GORDON, it was agreed that the Chemists' Managers' Association and Chemists' Assistants' Union call a joint meeting at the Horseshoe Hotel, Tottenham Court Road, on October 23, at 9 P.M., to finally decide on the proposed amalgamation.

A CHEMIST IN OMAHA, NEB., has announced a boycott on assistants who part their hair in the middle, and has advertised for a new batch, saying: "Only those who part their hair on the side need apply." He finds the others too frivolous.

Correspondence

Badgery.

SIR,—The Presidential badge, having been presented, and presumably worn at the Outlers' Feast, might be left in the jealous care of its temporary custodian, but that it has occasioned sundry official utterances in the *Journal* of the Society, and *litera scripta manet*. The original idea was to raise 100% for the badge by collecting 2,000 shillings from that number of chemists. Such plans are seldom carried out in detail. The amount was actually exceeded by 28*l.* 13*l.* 6*d.*, subscribed by about 848 persons, making an average subscription of nearly 3*s.* 0½*d.* Assuming (and I believe the figures are well within the mark) that there are 15,500 chemists, including 6,000 members of the Society, this would represent an average of nearly 2*d.* per chemist, or rather more than 5*d.* per member. The collection was made in the main "from and through divisional secretaries," of whom, according to the *Calendar*, there are about 418, and of these about 224 subscribed, leaving nearly 200 who appear not to have put forth any effort in this great enterprise. The editor calls them "a few singular exceptions." It can hardly be supposed that the 14,000 chemists, including 5,000 members, who did not subscribe, were influenced by the paltry amount solicited. They must have been either indifferent or distinctly opposed to the whole thing. The editor, however, who considers the badge "emblematic of a sentiment of unity among British pharmacists," proceeds to promote that unity by the easy insinuation that non-subscribers can "cheaply abstain," who, "for their own purposes," cast ridicule upon the badge, "which will probably serve as a milestone on the road of the Society's progress." Lest the pharmacist's liberty, such as it is, should develop into licence, we are warned in the official organ that "freedom in speech and in the expression of opinion is a modern privilege that especially requires to be regulated." Now the badge has been "approved by the Council"; and "it is not within the province of any member of the Society . . . to condemn its action. . . . Such procedure might bring any member within the scope of the disciplinary power," &c.—in fine, he might be turned out. *Jupiter tonans* in this fashion recalls the terrors of our childhood—*terruit urbem, terruit gentes*. I enclose my card.

FORMIDINE CAPTUS. (23/11)



Mr. Butt finished off the event by the ingenious suggestion that past-Presidents or their representatives should each contribute a link to form a chain to the badge, the links to have the presidential names and years of office upon them.

A mental snapshot of the gentleman chiefly involved in this suggestion when it suddenly struck him that he had

been President fourteen times. "Confound it," said he, "I shall have to give fourteen links to that wretched chain."

The Latin of the Pharmacopœia.

SIR,—An apprentice of mine having asked the Latin term for "leeches" I replied "hirudines," and referred him to the B.P., with a view to impressing it on his mind. But only then I noticed that "hirudo" is given as a synonym for "leeches." Surely this is indefensible. If "hirudo" means anything it means a leech. Even in the common drug-lists the plural is properly given as "hirudines." Neither can it be alleged that the term is indescribable, for long ago Linnæus spoke of "hirudo sanguisuga." But then Linnæus was not a member of the General Medical Council.

Yours truly,
J. C. MCWALTER.

Dublin.

* * A number of letters and replies to correspondents are unavoidably held over this week.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

257/30. J. W. W.—The White Stamping-ink is made by rubbing down zinc oxide to a cream with glycerin and water. There is no starch in your sample.

255/43. W. J. D.—The Wash for Lice on Horses you send is a strongly ammoniacal solution of arsenic, but we cannot undertake a quantitative examination without full particulars of the method of using it.

240/35. H. S. Co.—(1) The "Auto" still made by Messrs. Bennett, Sons & Shears (Limited) is the best apparatus for small supplies of distilled water. For particulars of still-licences see THE CHEMISTS' AND DRUGGISTS' DIARY, 1901, pages 226 and 234. (2) The ointment-making machines on sale all deal with large quantities of material. See the article on ointment-making in THE CHEMISTS' AND DRUGGISTS' DIARY, 1893, page 487.

245/57. J. H. B.—(1) The quantity of dog-powder sent is too small to admit of chemical analysis. (2) Recovering Photographic Waste.—The first washings from silver paper, the films of spoilt unused plates, and clippings of untuned silver paper should be placed in a tub or earthen vessel, and sulphuretted potash added, which precipitates the silver as sulphide. The sulphide mud accumulates at the bottom of the vessel, and the supernatant liquid is poured away and fresh residues added. When a sufficient quantity of silver sulphide has accumulated it is collected, squeezed dry, mixed with potassium nitrate and charcoal, and reduced to the metallic state by heat in a crucible. Waste gold-toning baths must be separately collected, and ferrous sulphate added, which precipitates the gold along with carbonate and oxide of iron. This slime is digested in aqua regia, precipitated again with ferrous sulphate. The finely divided gold is dissolved in aqua regia to make gold chloride for use again in toning.

285/24. Rose.—Chlorosulphonic Acid is a colourless fuming acid, sp. gr. 1.78, which decomposes into hydrochloric acid and sulphuric acid when mixed with water. The formula is $\text{Cl}(\text{SO}_2\text{OH})$. There are several methods of making the acid, the following being typical ways:—(1) Three parts of concentrated sulphuric acid (preferably the residue from preparing SO_2) are warmed in a long-necked flask, and 2 parts of PCl_5 added little by little; when HCl ceases to be given off the contents of the flask are fractionated the portion boiling between 152° – 156° being reserved. (2) Approximately, pure $\text{H}_2\text{S}_2\text{O}_8$ is placed in a retort connected with a good condenser, and dry HCl passed in so long as absorption occurs. The liquid is afterwards distilled and fractionated.

258/30. E. W.—The semi-fluid substance labelled "Hematine" is an extract of logwood used by dyers. We do not know what it is worth.

257/68. *Nero*.—It would not be safe to make the nit-oointment any stronger in veratrine, and the presence of that alkaloid brings the article within Part 1 of the Poisons Schedule.

258/19. *W*.—The only basis for computing the goodwill of a business is the net yearly profits. If the business connection is likely to be kept to the successor the goodwill is worth anything up to a year's net profits if over 200%. Limited companies reckon on getting two or three years' profits for the goodwill, but they usually sell to the public who bring nothing but money into the concern.

Information Wanted.

Postcard replies to any of the subjoined inquiries will be esteemed.

- 89/32. Manufacturers of hand-made lint ?
 8/10. Makers of porcelain evaporating-dishes ?
 22/41. Packers of the "Wilberforce" brand of tea ?
 21/24. Address of the St. George's Chemical Company ?
 20/39. Manufacturers of, or dealers in, ground bath-brick ?
 20/25. Makers of, or dealers in, window-attractions (models and working figures) ?
 23/37. Publishers of the A.B.C. system of book-keeping for medical practitioners ?
 18/51. Who is the maker of stamped cardboard boxes, circular, with round edges and oak finish ?
 22/71. Who supplies compressed carbon monoxide and the stoves for burning it for heating purposes ?

Coming Events.

Notices of forthcoming meetings are inserted in this section free of charge. Secretaries should send such notices to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C., so that they may be received not later than Wednesday of the week of publication; if later, by telegram to "Chemicus London."

Monday, October 14.

Dewsbury and District Chemists' Association, Church House, Dewsbury, at 8.30. P.M. The business is to discuss whether a syllabus for the session be drawn up, and make arrangements for a dinner on October 22.

Wednesday, October 16.

Royal Microscopical Society, 20 Hanover Square, W., at 7.30 P.M. Exhibition of mounted specimens of marine zoological objects, by Mr. C. L. Curtis. At 8 P.M., paper by Miss A. L. Smith on "The Fungi found on Germinating Farm-seeds."

Western Chemists' Association, Westbourne Restaurant, Craven Road, W. Annual meeting. At 9 P.M.

Chemists' Assistants' Union, 60 Paddington Street, W., at 9 P.M. Smoking concert.

Plymouth, Devonport, Stonehouse, and District Chemists' Association. Annual meeting at the Association's Rooms, at 3 P.M.

Thursday, October 17.

Chemists' Assistants' Association, 73 Newman Street, W., at 8.30 P.M. Musical and social evening.

Sheffield Pharmaceutical and Chemical Society, at 6.30 P.M. Inaugural meeting at the Literary and Philosophical Society's Rooms, Leopold Street. Mr. John Taylor (Bolton) will deliver an address at 7.45 P.M., which will be followed by the annual dinner in the Wharnclyffe Hotel.

CHEMICAL SOCIETY.—The first meeting of the Chemical Society is to be held on Thursday evening, October 31, at the Society's rooms, Burlington House, when Professor H. E. Armstrong, F.R.S., will deliver a memorial lecture on Sir Edward Frankland. The meetings in November and December are to be held on Thursday evenings as formerly, but in January and February and March, 1902, the experiment will be tried of holding the meetings on Wednesday afternoons at 5 o'clock.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: October 10.

THE drug-market has shown a fair amount of activity, and several important staples are tending upwards, notably, areca-nuts, Sumatra benzoin (in which a good business has been done), jalap, and Cartagena ipecacuanha. Essential oils are quieter this week, but none the less firm so far as regards peppermint. In chemicals, oxalic acid is a turn easier, and the same may also be said of citric and tartaric acids. Quinine has been unsettled in the second-hand market, with a fair business at daily fluctuating prices. Opium and morphine are both quiet. Sassa and menthol are unchanged. A considerable speculative business has been done in shellac at daily advancing prices. The following are the principal changes of the week, including those recorded at the drug-auctions:—

Higher	Firmer	Easier	Lower
Areca		Acid, citric	Acid tartaric
Balsam, Tolu		Acid, oxalic	Chiretta
Benzoin		Cardamoms	Elemi
Galls		Copper	Senna (Alex.)
Gambier		sulphate	Senna-pods
Gambose			(Tinn. and Alex.)
Ginger			Zinc salts
(Cochin)			
Guinea-grains			
Lactucarium			
Oil, petroleum			
Senna (Tinn.)			
Shellac			
Wax, Jamaica			

Arrivals.

The following drugs, &c., have arrived at the principal ports of the United Kingdom from October 3 to 9, both inclusive:—Areca (@ Hamburg), 5; arrowroot (@ Natal), 55 cs.; benzoin (@ Singapore), 75; bismuth, 3; borax (Ital.), 108; canary-seed, 436; caraway-seed, 669; cardamoms, 31; castor oil, (Fr.) 47 cs., 27 brls. (Ital.) 25, (E.I.) 668 cs.; chamomiles (@ Ghent), 24; chillies (@ Natal), 41; cinchona (Ceylon) 50, (@ Mollendo), 493; cinnamon, 100; coca-leaves, (Ceylon), 12; cochineal, 12; cod-liver oil, (@ Rotterdam) 50 cs., (@ Aalesund) 323, (@ Bergen) 189; coriander seed, 165; drugs, (@ Trieste) 204 pkgs., (@ Venice) 10 bls., (@ Hamburg) 11, (@ Marseilles, 62 bls., (@ Havre) 14 cs.; ergot (Span.), 22 cs.; essential oils, (@ Hamburg) 25, (@ Hong Kong) 30, (@ Messina) 102; fennel-seed, 1,640; fenugreek-seed, 120; gentian, (@ Marseilles) 18, (@ Bordeaux) 36; ginger (@ Hong-Kong), 1,155 pkgs.; gum arabic, (@ Suez) 166, 14 in tr., (@ Alexandria) 42; gum sandarac, 16; hoany, (Fr.) 8 cs., (Ital.) 30 cs., (Chil.) 45 brls., (@ New York) 186 cs.; jalap (@ Hamburg), 6 bls.; juniper-berries, 40; liquorice-juice (@ Batoum), 30 cs.; lac button (@ Calcutta), 565; manna, 1; mastich, 17 bds.; nux vomica (@ Pondicherry), 311; olive oil (@ Leghorn), 650 cs.; opium, (@ Marseilles) 15, (@ Genoa) 73, (@ Constantinople) 52; orris, (@ Leghorn) 126 bls., (Morocco) 7; peppermint oil (@ Hamburg), 9; quicksilver (Span.), 28; "roots" (@ Marseilles), 100 bls.; senna (@ Suez), 125 bls., 13 bls. in tr.; sponge, (@ Piræus) 590 pkgs. (in three consignments), (@ Marseilles, &c.) 330 pkgs. (in three consignments); storax (@ Marseilles), 25 brls.; sugar of milk (@ Antwerp), 5; sulphur (@ Catania), 2,818 pkgs.; vanilla, (@ Auckland) 29 cs., (@ Rio) 1 cs., (@ Marseilles, &c.) 155; wax, bees', (Ital.) 14, (@ Calcutta) 48, (@ Boston) 12, (@ Natal) 53, (@ W.C.A.) 24, (Amst.) 11, (Chil.) 10, (@ Marseilles, &c.) 133; wax, ceresin (@ Dusseldorf) 20, (@ Hamburg) 50; wax, Japanese, 15; wax, unnumbered, (@ Cologne) 13, (@ Hamburg) 9; yellow berries, 188.

Nine Months' Trade.

The returns of the value of exports and imports out of and into the United Kingdom during September show a heavy decline. The shrinkage in exports for the month amounts to 2,593,599*l.*, or 10.5 per cent., while the decline in imports amounts to 3,024,061*l.*, or 7.3 per cent. The export percentage is very much in excess of the average during the preceding eight months, the figures now showing a total shrinkage of 9,112,715*l.*; the imports for this period still show an advance of 5,273,069*l.* There is little cause for alarm, however, regarding the exports, as the decrease was confined principally to raw materials (coal) and new shipping. September was a better business month for the export chemical-trade, the figures showing an increase of 53,182*l.* on a total of 680,399*l.* There is still a deficit of 357,131*l.* on the nine months, the exports for that period being 6,714,749*l.*, against 7,071,880*l.* for the corresponding period of 1900. The shipments of alkali improved by 53,182*l.* last month, bleaching materials increased by 9,200*l.*, and chemical manures advanced 14,367*l.* The trade in copper sulphate declined by 236 tons, or 5,982*l.*, which was not unusual. The export of medicines, &c., continues to expand, the figures for the nine months now reaching the respectable total of 981,402*l.*, against 928,430*l.* last year.

Heavy Chemicals.

There is little of special change of real importance to be noted as regards the general condition of the heavy chemical market. A rather better tone is certainly apparent, however, and practically all classes of chemicals are in somewhat heavier demand. Makers have been particularly busy with exports recently, but this has been owing to the necessity of catching the last few steamers to northern ports where navigation closes early, and such activity is quite usual at this period of the year. As regards home trade consumers are now covering their forward requirements better, and contracts for next year are being steadily booked by manufacturers. Present prices, however, are scarcely upheld. For prompt deliveries there is little or no alteration in values.

Barium Products are specially noticeable, as they continue to maintain a very firm tone, with prices particularly steady at late rates. Mineral carbonate of barytes is certainly in more plentiful supply, but not sufficiently so to cause any fluctuation in the values of the manufactured products. Prices for witherite are merely nominal, and vary according to percentage, quantity, and time of delivery. Chloride of barium, ordinary refined crystals in usual casks, 7*l.* 5*s.* to 7*l.* 15*s.* per ton, and in bags, 7*l.* to 7*l.* 10*s.* per ton. Blanc Fixe, pure precipitated sulphate of barium in paste form is in brisk demand and somewhat scarce at 7*l.* 5*s.* to 7*l.* 15*s.* per ton in usual casks. Mineral sulphate of barytes, ground, continues to move well at unchanged rates of 40*s.* to 100*s.* per ton in accordance with quality, quantity, and package. Nitrate of baryta crystals and powdered, 16*l.* 10*s.* to 17*l.* 10*s.* per ton in casks free on rails. Hydrate of baryta, purest crystals, steady at 14*l.* to 14*l.* 10*s.* per ton in 6 to 7 cwt. casks. Sulphide of barium, crude calcined 70-75 per cent., 5*l.* 10*s.* to 6*l.* per ton in large casks.

Zinc Salts in fair consumptive demand at rather lower figures. Zinc sulphide crystals, 6*l.* 5*s.* to 6*l.* 10*s.* per ton. Zinc chloride solution, 100° Tw., 6*l.* 7*s.* 6*d.* to 6*l.* 12*s.* 6*d.* per ton.

Magnesium Salts, moving freely at unchanged rates, which continue firm. Sulphate (Epsoms), 65*s.* to 67*s.* 6*d.* per ton in bags free on rails. Chloride of magnesium, 57*s.* 6*d.* to 63*s.* per ton. Carbonate of magnesia, 37*s.* 6*d.* to 40*s.* per cwt.

Liverpool Drug Market.

Liverpool, October 9.

CASTOR OIL.—The *Logician* has arrived with 675 cases good seconds Calcutta oil, but the market is quiet at 3*½d.* to 3*⅝d.* per lb., according to position; English and French first pressure is held for 3*½d.* to 3*⅝d.*; and second-pressure English and French, 3*d.* to 3*⅞d.* per lb.

GUM ACACIA.—There has been considerable movement in this, and 150 serons soft white sold at 45*s.* to 47*s.* 6*d.* per cwt.; 60 serons soft and hard amber mixed, at 44*s.*; also 50 serons similar quality at 42*s.* 6*d.* There is evidently a strong disposition to operate at present low prices. An advance of about 5*s.* per cwt. has been established.

TURMERIC.—For eleven bags; bulb at auction 11*s.* 3*d.* per cwt. was bid and refused. For 43 bags fine finger Madras there was no bid.

TURPS.—Steady, at 27*s.* 6*d.* per cwt, being slightly dearer.

HONEY.—A sale of 36 barrels of Jamaica honey is reported at 19*s.* per cwt.; and 4 barrels at 15*s.* per cwt. About 140 barrels Chilean Pile III. have been sold at 18*s.*

BEEWAX.—Considerable inquiry, but little or no actual business, as the ideas of buyers and sellers are still somewhat apart. For 3 sacks pale Chilean at auction 7*l.* 12*s.* 6*d.* bid, but 7*l.* 15*s.* per cwt. wanted.

QUILLAIN-BARK.—13*l.* per ton may be considered value, for although there are a fair number of inquiries no actual transactions have taken place.

BALSAM COPAIBA.—For one barrel cloudy Maranham just landed per *Parawa* 2*s.* 0*½d.* per lb. was paid.

CANARY-SEED.—Steady at unchanged values.

WAX, CARNAUBA.—Quiet, with small sales of inferior to fair yellow at 61*s.* to 65*s.*; medium at 53*s.* to 60*s.*; and a few bags grey Pernambuco at 56*s.* per cwt.

German Drug Market.

Hamburg, October 8.

Our drug-market in general is quiet, only a few articles such as lycopodium, senega, menthol, &c., meet with interest.

ANISEED.—Russian is firm, new crop being held at 43*m.*, and old crop at 41*m.* per 100 kilos.

CITRIC ACID is dull and lower, at 255*m.* per 100 kilos.

CAMPHOR (Refined) shows a quiet market, with second-hand sellers at 415*m.* per 100 kilos.

CONDURANGO is quiet and lower, at 75*m.* per 100 kilos.

CEVADILLA-SEED is unchanged, and quoted 76*m.* per 100 kilos.

ERGOT is firmer, and shows more demand. To-day's quotation for Russian is 350*m.*, and Spanish 340*m.*, per 100 kilos.

IPCACUANHA is firmer. Cartagena has been sold at 14*½m.* per kilo, and for Rio 24*m.* is asked.

LYCOPodium shows a very firm position, and very little offering from Russia; spot-delivery is scarce, at 455*m.*, and forward, 440*m.* per 100 kilos.

MENTHOL continues firm, at 31*m.* per kilo., spot.

QUININE is firmly held, at 39*m.* per kilo.

SENEGA.—Western has risen again, and is now held for 510*m.* per 100 kilos.

SUGAR OF MILK is quiet, at 80*m.* per 100 kilos.

STAR-ANISE is firmer, at 120*m.* per 100 kilos.

JAPANESE WAX is advancing, and 68*½m.* per 100 kilos. is wanted.

WORMSEED steady, at 55*m.* to 75*m.* per 100 kilos.

OILS (FIXED).—Cod-liver is unchanged, non-congealing being quoted 65*m.* per barrel. Castor is firm, at 57*m.*; for first pressing in barrels, and forward delivery, 56*m.* to 55*½m.* per 100 kilos. Linseed is very dull and lower. Cotton-oil quiet; rape-oil flat.

OILS (ESSENTIAL): Star-anise is unchanged, at 11*m.* per kilo., and all peppermint oils are firm.

Cablegrams.

HAMBURG, October 10, 3 P.M.:—An advance is expected in quinine. Western senega-root has improved again, and 540*n.* per 100 kilos. is asked. Spanish ergot of rye is firmer, and so is American HGH oil of peppermint at 8*½n.* per kilo.

* * *

NEW YORK, October 10, 3.30 P.M.:—A good volume of business is passing on this market. Quinine has been advanced to 28*½* per oz. Balsam Tolu is also dearer at 33*½* per lb., and for American HGH oil of peppermint \$1.85 is now wanted. Brazilian ippecacuanha is dearer at \$2.80. American bleached beeswax is now 30*¢* per lb. Cubebs are easy at 11*½¢*, while senega-root is a strong market at 55*¢*. Manna has declined.

London Markets.

ACID, CITRIC.—Crystals are now quoted 1*s.* 1*¾d.* to 1*s.* 2*d.* per lb., according to quantity and make. For next year's delivery 1*s.* 1*d.* per lb. is quoted for English.

ACID, OXALIC, is easier at 2*½d.* per lb., net, delivered free London.

ACID, TARTARIC.—English crystals or powder is lower at from 11*½d.* to 1*s.*; and foreign 11*¼d.* per lb.

ALCOHOL.—German potato-spirit is quoted at 7*½d.* to 8*½d.* per proof gal., net, delivered in bond; and perfumers' quality, 8*½d.* to 9*½d.* Methylc (wood-naphtha) is 3*s.* 8*d.* per gal., net, f.o.b. London or Continent.

ALMONDS.—From Messina there has been a good business for prompt shipment, causing a momentary advance, but after the departure of steamers, prices receded again. The crop is good both as to quantity and quality. Choice Avola are quoted 74*s.* 6*d.*, and currants 61*s.* 6*d.* per cwt. of 50*¾* kilos., f.o.b.

ANISEED.—The quotation has advanced to 23*s.*, as failure of the crop is reported from Russia.

ARROWROOT.—At auction on Wednesday St. Vincent's was bought in at 1*½d.* per lb. for fair, at 2*d.* for good, and at 2*¾d.* for fine.

CINCHONA.—During the three months ended June the exports from British India were:—

	1901	1900	1899
Lbs. ...	666,252	1,321,682	931,456

In the drug auction 4 bales of flat Calisaya sold at from 1s. 3d. to 1s. 3½d. per lb. for country damaged, and for 23 serons of Huanoca quill 6¾d. was paid, and 1s. 2d. for 3 serons of good bright Loxa quill.

COPPER SULPHATE is again easier at from 21l. per ton upwards for good brands on the spot.

CUBEBS.—The exports from Java from January to May have been:—

	1901	1900	1899	1898	1897
Pic. ...	1,055	1,335	1,231	612	1,899

DEXTRINE is quoted from 13s. 6d. to 14s. per cwt. net, according to quality, ex wharf London.

GALLS.—Persian blue are very firm at 64s.; importers still quote 65s. to 70s.

The exports from Baghdad and Bussorah during 1900 amounted to 12,391 bags (61,955l.), against 11,899 bags (59,495l.) in 1899.

GRAINS OF PARADISE.—The nominal asking price is now 70s. per cwt., as stocks in first hands have been cleared.

GUM, TRAGACANTH.—Fine qualities are in small supply, and quoted at from 15l. to 15l. 10s. per cwt.

LACTUCARIUM.—This is now a very scarce article, and almost entirely wanting.

LEMON-JUICE (CONC) is without any new feature in Messina. Stocks available are insignificant, but there is hardly any demand, most consuming markets being apparently well supplied; 16l. 15s. per pipe of 130 gals., f.o.b., Messina, is quoted.

LIQUORICE ROOT.—There was a slight falling-off in the quantity of liquorice-root exported from Bussorah during 1900 (says a British Consular report), and the trade is in a far from satisfactory condition, as nearly 30 per cent. of the root proved to be practically unsaleable at New York, owing to its inferior quality; the trade is further handicapped by the dishonesty of diggers who too often abscond after receiving advances of money. The exports were 54,257 bales, against 60,266 bales in 1899.

MENTHOL.—A fair business has been done on the spot at 15s. per lb. for Kobayashi crystals, and for October-November shipment 13s. 6d. to 14s. c.i.f. is quoted; 15s. 6d. is now asked for spot.

OIL, BERGAMOT.—From 7s. 9d. to 8s. 3d. per lb. is quoted, c.i.f., and 8s. 6d. spot.

OIL, CASTOR.—Calcutta oil is a dead-letter on this market.

OIL, COD-LIVER.—The Bergen market is unaltered at 62s. per barrel, f.o.b., for finest non-congealing Lofoten oil. The exports from Bergen to date amount to 9,773 barrels, against 7,074 barrels last year. On the London market business has been done at 64s., c.i.f.

OIL, EUCALYPTUS.—B.P. quality in single cases can be had at 1s. 4d. per lb. In auction 6 cases of Magnet brand, containing 55 to 56 per cent. eucalyptol according to Umney's analysis, were held for 1s. 5d., but a bid of 1s. 2d. is to be submitted for the whole.

OIL, LEMON.—Good brands are obtainable at 3s. 3d., spot, or 3s. 1d., c.i.f.

OIL, OLIVE.—A Messina report, dated September 30, states that the crop is progressing favourably; abundant rains have fallen. A good out-turn is now assured, as the damage done by the olive fly is only small, and the olives are sound. Prices for prompt delivery are still well maintained.

OIL, PEPPERMINT, is quieter, with no alteration in prices, Japanese dementholised being quoted 4s. to 4s. 3d., spot, and 4s. 1½d., c.i.f. Importers of American HGH continue to quote 8s. 6d., but it is still possible to buy at 8s.

OIL, PETROLEUM, has advanced another ¼d., American on the spot being quoted 6¾d. to 6¾d., and water-white 7¾d. to 7¾d. per gal. Russian is 6¼d. to 6¾d.

OPIMUM.—Persian on the spot is very quiet at 11s. 6d. per lb. nominally.

SMYRNA, September 27.—The transactions this week amount to 15 cases for exportation, including 10 cases Adette talequale at 8s. 6d. per lb., c.i.f., 2 cases new inspected Karahissar at 9s. 4d., and 2 cases old ditto at 9s. 2d. The market closes quiet, the arrivals amounting to 2,331 cases, against 2,934 cases last year.

CONSTANTINOPLE, October 4.—The market is quietly steady, at 8s. 4d. to 8s. 6d. per lb. for new crop, and 9s. 3d. for Balukissar. Rain is wanted inland to allow of autumn sowings being effected, and, failing some shortly, we quite expect to see a firmer tone. Fifteen cases "soft" shipping have been sold this week at the parity of 12s. per lb.

The exports from Baghdad and Bussorah during 1900 amounted to 556 cases (55,600l.), against 638 cases (63,800l.) in 1899.

QUININE has been a very unsettled market in second hands this week, quotations fluctuating daily. Opening at a decline on Monday, it subsequently went firmer, but on Wednesday prices were barely steady again, and good German brands of sulphate were quoted 1s. 1½d. per oz. nominally on the spot. December delivery 1s. 1½d., and March 1s. 2d. To-day the market is flat, and these prices can be shaded by ¼d. Some of the makers are still sellers at 1s. 2d., and others are not offering at this figure. In Batavia, on October 9, 3,100 kilos. of Ed. II. sold at an average of 20½d. per kilo. (about equal to 8s. Amsterdam unit), against 20l. per kilo. paid at the previous auction. The next auction to be held in Batavia will take place on November 13.

The exports of quinine from Java during May amounted to 135 cases, 50 of which were shipped to Rotterdam, 50 to the United Kingdom, 30 to New York, 2 to Hong-Kong, and 3 to Japan. From January 1 to May 31 the shipments have been:—

	1901	1900	1899	1898
Cases ...	821	657	755	358

So far this year the U.S.A. has received 579 cases, Holland 51 cases, United Kingdom 41 cases, and Japan 31 cases.

SAFFRON.—The exports from Spain during the seven months ended July have been:—

	1901	1900	1899
Kilos. ...	45,662	42,889	29,556

SENEGA is a dead letter this week, but firm, at 2s. 6d. per lb. net, spot, and 2s. 3½d. c.i.f. The highest figure paid appears to have been 2s. 4d. spot. We are advised from Minneapolis, Minn., under date of September 30, that the reports of the shortage are by no means exaggerated. This year the lots vary from 25 lbs. to 100 lbs., whereas in former years from 500-lb. to 1,000-lb. parcels used to be received from the diggers, and in some places none is being dug.

SHELLAC.—The market last week closed with a considerable business at advanced prices in all positions, and since then the market has been excited, values having risen daily, on account of the Calcutta price of TN being cabled 4r., and subsequently 3r. higher, now 50r. Spot has been in good demand, including fine second orange up to 95s., TN up to 90s. to 94s., and Button has sold at extreme prices. For arrival AC Garnet has been sold at up to 94s. c.i.f. for September shipment, and 95s. spot. In "futures" several thousand cases have changed hands, including October delivery, at 91s. to 93s.; November, 92s. 6d. to 94s.; December, 94s. 6d. to 95s. 6d.; January, 94s. 6d. to 96s.; and March, 96s. to 97s. per cwt.; and to-day prices have advanced 5s. again. At auction on Tuesday 105 cases only were catalogued, and sold readily at about 10s. advance on previous sale prices. Ninety cases second orange offered and sold at 89s. to 90s. for fair but cakey, and 86s. to 87s. for ordinary blocky red; 10 cases pale thin ruby Garnet sold at 81s.

SPICES.—Cochin *Ginger* is again dearer; a large business has been done privately from 41s. up to 43s. per cwt. for washed rough. At the auctions on Wednesday the holders were firm, but the biddings were not up to private rates, and only a few bags were sold at 43s.; boldish washed rough was bought in at 45s., bold rough at 55s., small cut at 55s., and medium at 75s. per cwt. Jamaica sold at 40s. 6d. per cwt. for dull. African was bought in at 40s. per cwt for small dark. Bengal is quoted 40s. per cwt. Zanzibar *Cloves* were bought in at 4d. per lb. for fair, and at 3½d. to 3¾d. for dark. The speculative market is firm at 3¾d. to 3¾d. per lb. Fair picked Penang partly sold at 8d. per lb., and middling Amboyna at 5¾d. per lb. *Pimento* steady, fair to good clean sold at 3¾d. to 3¾d. per lb. There was no demand for *Capsicum*; common cherries were bought in at 25s., thin red East India on stalk at 20s., and dark small pods at 15s.

per cwt. New selected *Cassia-lignea* was bought in at 46s., *Cassia-chips* at 50s., and *China-cinnamon* at 27s. per cwt. *Cinnamon-chips* partly sold at 2½d. per lb. *Mace* steady; middling pale Penang was bought in at 1s. 10d. per lb.; middling red West India sold at 1s. 3d. per lb. *Pepper* quiet; Singapore black is selling at 6d. per lb. on the spot. Penang white was bought in at 8½d. per lb.

SUGAR OF LEAD.—White is quoted 23s. 6d. and brown 19s. 6d. per cwt., f.o.b. Continental port in 5-ton lots.

SULPHUR.—A Messina report, dated September 30, states that the pacific prospects, in consequence of the Czar's visit to France, had a disastrous effect on foreign exchange. The premium on gold declined considerably, and is now at 3 per cent., against 6 per cent. a few months ago. This raises all quotations in sterling value correspondingly. The Anglo-Sicilian Sulphur Company maintains its prices, and some "outside" mine-owners have lately gone over to the company. It is estimated that 80 per cent. of the whole production now belongs to the Anglo-Sicilian Company, which will consequently control the market still more easily. Arrivals of free brimstone, belonging to "outsiders," have not been wanting, and a momentary depression was apparent, but the quantity is quite insufficient to affect the market. The French refiners by contract were bound to purchase 60,000 tons per annum from the monopoly; this contract has been cancelled, however, the Frenchmen paying an indemnity, and the latter will now also compete for "outside" sulphur. The quotations are as follows:—Best un-mixed seconds, 83s.; best thirds, 72s.; refined block sulphur (100 per cent.), 84s. 6d., per ton of 13 Sic. cantars, f.o.b.; refined roll, in casks, 91s. 6d.; sublimed flowers, in bags, 95s. 6d., per ton of 20 cwt., f.o.b.

London Drug-auctions.

THE auctions of new and old goods attracted more attention than usual, and although there was nothing of special interest in them there was an all-round demand. Tinnevely senna sold well at higher prices, but Alexandrian was forced off at cheaper rates. Cardamoms were about unchanged; calumba sold cheaply, but at irregular prices; elemi was more freely offered and cheaper; chiretta was lower. Ipecac. was firmly held, with more business. Jamaica wax was 2s. 6d. to 5s. dearer. The following table shows the amount of goods offered and sold, the asterisk referring to those sold privately:—

	Offered	Sold		Offered	Sold
Ajowan-seed	60	0	Colocynth	5	5
Alhumen	13	1	Coca leaves	62	27
Aloes—			Croton-seed	22	0
Cape	2	2	Cumin-seed	15	0
Curaçao	11	11	Cus-cus	20	0
East African	40	0	Cuttlefish-bone ..	42	42
Scootrine	20	10	Dragon's-blood ..	11	10
Ambergris	6	3	Elaterium	1	0
Ammoniacum	16	0	Elemi	8	5
Aniseed	10	0	Ergot	46	0
Anatto-seed	32	0	Galbanum	9	0
Antimony (Jap.) ..	50	0	Galls	25	0
Areca	45	0	Gamboge	10	0
Argol (Cape)	9	9	Guaiaacum	12	4
Asafetida	50	1	Gum acacia	114	3
Asphaltum	41	0	Gum acroides ..		
Balsam copaiha ..	17	0	(tons)	10	0
Peru	3	0	Gum opoponax ..	1	0
Tolu	31	0	Honey (Australian)	131	0
Benzoin—			Cuban	5	5
Palembang	24	14	Jamaica	154	68
Siam	17	0	Ipecacuanha—		
Sumatra	139	25	(Cartagena)	26	2
Buchu	32	3	Rio	58	12
Calumba	674	246	Jalap	36	0
Camphor (Jap. ref.)	10	0	Kamala	22	0
Canella alba	20	0	Kino	15	0
Cannabis indica ..	50	5	Kola	83	57
Cantharides	2	0	Lime-juice	9	0
Cardamoms	234	136	Liquorice-juice ..	11	0
Cascara sagrada ..	135	15	Liquorice-root ..	150	11
Cascarilla	18	0	Matico	11	0
Cashew-nuts	5	0	Morphine (oz.) ..	520	0
Casto rum	4	0	Musk	4	2*
Chaulmoogra-seed ..	25	0	Myrrh	15	0
Chiretta	31	29	Oil—		
Cinchona	41	30	anise, star	4	4
Civet	24	0	castor (E.I.)	57	0

	Offered	Sold		Offered	Sold
Oil—			Senna, Tinnevely	597	455
chaulmoogra	4	0	Squills	47	25
cinnamon	28	0	Storax	5	0
citronella	5	0	Tamarinds—		
eucalyptus	36	0	(E.I.)	133	0
lemongrass	9	0	(W.I.)	25	0
lime (W.I.)	18	2	Tonka beans	1	0
nutmeg	6	0	Tragacanth	18	9
peppermint (Jap.)	29	0	Turmeric powder ..	5	0
rose (E.I.)	8	0	Turmeric	183	47
Opium (Tky.)	4	0	Turtle (dried)	5	1
Orange-peel	26	2	Valerian	10	0
Orris	74	0	Vermilion	6	0
Otto of rose (vases)	5	0	Wax (bees)—		
Patchouli-leaves ..	5	0	Australian	18	0
Quassia-chips	2	0	Chinese	6	0
Rhubarb	75	24	East Indian	73	0
Saffron	2	0	Hayti	6	0
Sandalwood	17	0	Italian	4	0
Sarsaparilla	84	45	Jamaica	9	9
Scammonium	12	0	Morocco	8	0
Scammony-root ..	156	0	Mozambique	22	10
Seedlac	28	28	Spanish	45	0
Senna, Alexandrian	91	46	Zanzibar	393	119

ALOE.—No arrivals of Cape have taken place. In auction 2 cases of this description were offered, and sold at 25s. per cwt. for dull and drossy. Eleven boxes of brown livery Curaçao sold at 16s. per cwt., subject, and for 10 kegs of good bright stiff Scootrine 72s. 6d. was paid. So-called "East African" aloes, of which 40 cases were catalogued, was bought in at 23s.

ARECA.—For good, clean, sound seed the high figure of 50s. per cwt. is now wanted privately. In auction 45 bags of unpeeled were held for 30s.

ARGOL.—Seven bags of good grey Cape sold at 48s.; and pinky ditto at 39s. per cwt.

BALSAM, COPAIBA.—Three casks of Maranham balsam were held at 2s. 3d. per lb.

BALSAM, TOLU.—The market is firmer, a fair business having been done at 1s. 6d. per lb. for small tins, and there is practically nothing more to be had at this price. For a second-hand parcel of 4 cases of large tins in auction 1s. 3d. was refused, 1s. 5d. being wanted.

BENZOIN.—Privately there has been a good business during the past fortnight, over two hundred cases of Sumatra gum changing hands at dearer rates, principally for the home trade. In auction, for 16 cases good fair Sumatra seconds, with small to medium almonds, well packed, 7l. 15s. was paid; for ordinary seconds, 6l. 15s.; and common, 5l. per cwt. Of Palembang, 14 cases of dull and very false-packed gum sold at 22s. Of Siam, 4 cases of small to medium loose yellowish almonds of good flavour were held at 15l. per cwt.

BUCHU.—Slow of sale; 10d. per lb. was paid for a bale of ordinary stalky round leaf, and there is more to be had at this figure. A string of 27 bales fair round greenish leaf was held at 11½d.

CALUMBA was in large supply, and lower prices were accepted in some instances. The sales consisted of 168 bags ordinary small and medium natural sorts at from 7s. 9d. to 8s. 3d., and sea-damaged at 8s.; 18 bags of fair sorts part wormy at 12s. to 13s., and 20 bags dull and wormy 7s., subject.

CANTHARIDES.—Bright Russian was limited at 2s. 5d. per lb., at which figure business has been done.

CANNABIS INDICA.—For 5 of Robbins siftings 2s. per lb. was paid, and tops were held at 2s. 3d.

CARDAMOMS.—In fair demand at slightly easier prices. The following were the sales: Ceylon-Mysore, extra bold pale heavy, 3s. 6d.; medium to bold pale, 3s. to 3s. 1d.; bold medium pale, 2s. 9d. to 2s. 11d.; medium pale, 2s. 5d. to 2s. 7d.; long pale lean, 2s. 3d.; medium brownish, 1s. 9d.; bold splits, 1s. 9d.; small pale, 1s. 7d. to 1s. 9d.; very small ditto, 1s. 3d. to 1s. 5d.; small splits, 1s. 2d. to 1s. 4d.; and brown splits and pickings, 1s. 3d. to 1s. 5d. Ceylon-Malabar, small and medium, 1s. 4d. Six cases of medium brown Tellicherry sold without reserve at 1s. 10d. per lb. Decorticated seeds brought from 1s. 10d. to 2s. 4d. per lb.

CASCARA SAGRADA.—Of 1899 crop, 85 bags were shown, of which 15 bags sold at 26s. for fair bright quilly. A parcel of 1900 crop was also offered at this figure.

CHIRETTA.—In more demand; for 24 bales of good, 1 $\frac{3}{4}$ d. per lb., subject, was paid. Part of another parcel catalogued had been sold privately, and 2 $\frac{1}{2}$ d. was wanted for the remainder.

COCA LEAVES.—For thin bright green Traxillo leaves 1s. per lb. was paid, and sea-damaged at 4 $\frac{1}{2}$ d. Two cases of good bright green from Ceylon sold at 1s.

COLOCYNTH.—A case of small palish and partly broken Turkey apple had been sold privately, and for four packages of brown pulp 1s. per lb., subject, was accepted.

CUTTLE FISH BONE.—Thirty-two packages good bold white bone from Bombay sold at 3 $\frac{1}{2}$ d. per lb., and for 10 packages of low dirty from Bushire 1 $\frac{1}{2}$ d. was paid.

DRAGON'S-BLOOD.—Sold at valuations, 3 cases of fine reboiled lump selling at 10 $\frac{1}{2}$ per cwt., 5 cases fair seedy virgin lump, 9 $\frac{1}{2}$ to 9 $\frac{1}{2}$ 2s. 6d., and medium lump part seedy mixed, 8 $\frac{1}{2}$ to 8 $\frac{1}{2}$ 7s. 6d.

ELEMI.—A new parcel of 5 cases fair to good white gum from Manilla sold readily at 6 $\frac{1}{2}$ 7s. 6d. per cwt.

ERGOT.—In auction there was no business, several parcels of good sound Spanish being offered at 1s. 9d. Privately, 1s. 6 $\frac{1}{2}$ d. to 1s. 7d. per lb., c.i.f., has been paid for Spanish in 1-ton lots, but 1s. 7 $\frac{1}{2}$ d. to 1s. 8 $\frac{1}{2}$ d. is now asked from Hamburg. It is said to be difficult to procure offers direct from Spain. Russian is offered at 1s. 6d. per lb., c.i.f.

GAMBOGE.—Privately it is reported that the market has been closed for the United States, and that 12 $\frac{1}{2}$ per cwt. has been refused for sorts. In auction 10 cases of good unsorted Singapore pipe, mostly of orange fracture, were held for 13 $\frac{1}{2}$., a bid of 12 $\frac{1}{2}$ 2s. 6d. being refused.

GUAIACUM.—For fair block 1s. 2d. to 1s. 4d. was wanted, and for four cases slightly drossy crumbly block 1s. 1d. was paid.

HONEY.—Eleven cases of half-set white and brown sold at 17s. 6d., and 54 packages Jamaica sold "for account of whom it may concern," with all faults at from 11s. up to 19s. 6d. Thick Cuban in tins sold at 14s. 6d.

IPECACUANHA.—Privately Cartagena has been in fair demand, with sales at 6s. 9d., and further sellers thereat. In auction 2 bags of this description sold at 6s. 9d., the remainder of the parcel being bought in at 7s. From another catalogue 18 bales of Cartagena were limited also, at 6s. 9d. per lb. Rio was firmly held, and more business was done than usual in auction, 8 bales of fair bright natural root selling at 11s. 2d. to 11s. 3d., and 4 bales of ordinary lean and stemmy at 11s. per lb.

JALAP.—There has been a good demand privately, and some 50 to 60 bales have been sold at 7d. per lb. net. In auction 36 bales offered without draft, tret, or discount, but they were bought in.

KINO still remains neglected, with plenty on offer at 1s. 3d. per lb.

KOLA.—Several parcels changed hands as follows: West Indian, 21 barrels washed at 3 $\frac{1}{2}$ d. to 3 $\frac{3}{4}$ d. per lb.; 10 packages low dirty at $\frac{3}{4}$ d. per lb., without reserve; 25 bags natural African quarters at 2d. The value of the exports from Dahomey during 1900 was 3,221 $\frac{1}{2}$., against 3,468 $\frac{1}{2}$ in 1899, and 1,781 $\frac{1}{2}$ in 1898.

LIME-JUICE.—Unworked West Indian with "all faults" was limited at 11d. per gal.

LIQUORICE-JUICE.—One case Italian (Barone Amarelli), containing sticks of about 1 oz. each, sold at 50s. per cwt.; 5 other cases of 2-oz. sticks were sold privately.

OIL, ANISE, STAR.—In auction, 4 cases sold at 4s. 10d. per lb., the broker intimating that the oil had been analysed and found to be pure.

OIL, LEMONGRASS.—A parcel of Winter's brand was offered and 7d. was refused, 8d. being wanted.

OIL, LIME.—Two cases of West Indian distilled sold at 1s. 6d. per lb.

ORANGE-PEEL.—Of 6 cases put up without reserve, 2 sold at 1 $\frac{1}{2}$ d. per lb. for dark overheated Tripoli strip.

ORRIS.—Small white Florentine was held at 30s. per cwt., 38 packages Morocco root were bought in at from 15s. to 22s. according to quality.

RHUBARB.—The offerings to-day consisted entirely of parcels in second-hands, the bulk of which was more or less wormy. The following were the sales: Six cases flat high-dried, small to bold, slightly wormy, three-quarters pinky fracture and one-quarter grey ditto, 6 $\frac{3}{4}$ d. to 7d. per lb.; 4 cases of slightly wormy, flat high-dried Shensi, three-quarters fair pinky and one-quarter dark fracture, without reserve, 9d. to 9 $\frac{1}{2}$ d.; 3 cases flat high-dried, mixed sizes, very wormy, half grey and half dark fracture, 5 $\frac{3}{4}$ d.; 4 cases round rough high-dried, grey and dark fracture, wormy, 4d. to 4 $\frac{1}{4}$ d., subject; and 6 cases small flat high-dried, dull coated, very wormy, 2 $\frac{1}{2}$ d. to 3d. per lb., without reserve.

SARSAPARILLA.—Of 20 bales grey Jamaica offered, 6 sold at 1s. 7d. for sound. Twelve bales Lima-Jamaica offered, and 7 sold at 1s. 1d. for sound; 1s. was refused for slightly country-damaged. Eleven other bales were offered, of which 8 sold at 11d. to 1s. for slightly country-damaged. Four serons Honduras sold at 1s. 2d. per lb., subject. Twenty serons Gnatmala sold readily at 5 $\frac{1}{2}$ d. to 5 $\frac{3}{4}$ d. per lb.

SCAMMONY-ROOT.—A parcel of 156 bales was held at from 23s. to 27s. 6d. per cwt., according to quality.

SEEDLAC.—Twenty-eight bags small native flaky Madras sold at 67s. per cwt.

SENNA.—Tinnevely met with active competition at dearer rates, from 3 $\frac{1}{4}$ d. to 4 $\frac{1}{4}$ d. per lb. being paid for medium and bold greenish leaf; small and medium greenish ditto sold at 2 $\frac{3}{4}$ d. to 3 $\frac{1}{2}$ d., and ordinary yellowish and specky to medium 1 $\frac{1}{2}$ d. to 2 $\frac{1}{4}$ d. per lb. Tinnevely pods were cheaper at from 1 $\frac{1}{2}$ d. to 1 $\frac{3}{4}$ d. Of Alexandrian senna 15 bales siftings sold at 2d. per lb. subject, 11 bales broken leaf at 2 $\frac{1}{2}$ d. subject, and fair bold at 3 $\frac{1}{2}$ d. to 4 $\frac{1}{2}$ d. Seven bales of good pale Alexandrian pods realised 6 $\frac{1}{4}$ d., and sea-damaged 6d.; dark pods were held at 4d. The s.s. *Persia* is due with a shipment of about 500 bales Tinnevely leaf.

TAMARINDS.—Privately there has been a good demand for West Indian at last week's prices, and the reduced stock is becoming concentrated. In auction 25 barrels fair syrupy Barbados were held at 16s. duty free.

TONKA-BEANS.—For a case of partly foxy Pará a bid of 10 $\frac{1}{2}$ per lb. is to be submitted.

WAX, BEES'.—Jamaica was 5s. per cwt. dearer in auction, 8 $\frac{1}{2}$ being readily paid for all that offered. Zanzibar was also in good demand at unchanged prices, although the finest grade did not sell, 6 $\frac{1}{2}$ 15s. being wanted for even brown. Fair brown block sold at 6 $\frac{1}{2}$ 7s. 6d., and mixed colours 6 $\frac{1}{2}$ to 6 $\frac{1}{2}$ 5s., mixed pipe at 6 $\frac{1}{2}$ 5s., and dark block at 5 $\frac{1}{2}$ 10s. per cwt. Mozambique fair yellow to dark brown pipe sold at 6 $\frac{1}{2}$ to 6 $\frac{1}{2}$ 7s. 6d. There was no demand for any other description.

NOT THE DIURETIC BALL.—At Abertillery, on October 8, Mr. Edwin Price, chemist, Abertillery, was sued by a customer for damages in respect to the death of a horse alleged to be due to a diuretic ball sold by defendant. The plaintiff's case completely broke down, and the Judge decided in favour of Mr. Price, with costs.

THE NEW SWEDISH PHARMACOPOEIA, the compilation of which was started in 1894, has now been published, and comes into force on January 1, 1902. It replaces the seventh edition of 1869, to which supplements were added three times, the last being in 1888. The new pharmacopoeia differs from its predecessors in that the Swedish language (instead of Latin) is chiefly used.

MR. MCKINLEY'S ASSASSINATION.—Amongst those arrested in connection with this tragedy was Dr. Isaac Saylin, a druggist, at No. 1392 Broadway, Buffalo. He was arrested in Chicago on the charge of being one of the conspirators in the anarchists' plot, which resulted in the assassination. He is known to be a friend and confidant of Emma Goldman, having held conversations with her over the long-distance telephone when she was in Rochester, and having sent her money. His store is near the Nowak Hotel, where Czolgoz stopped in Buffalo.

Vaccination.

By W. HARRISON MARTINDALE, Ph.D. Marburg.

THE terrible severity of variola, or smallpox, now threatening the largest centre of population in the world, is practically unknown to the present generation, yet it has been estimated that 60,000,000 human beings died of smallpox in the eighteenth century. In Iceland, where the disease had previously not been known, during the years 1707 to 1709 18,000 of the population of 50,000 were swept away by its ravages. In Ware, in an epidemic in 1722, the few who escaped attack did so only with the firm conviction that they were to "have the smallpox." With this conviction, that sooner or later every human being must pass through the disease to either die or remain on earth hopelessly pitted and disfigured, there grew up a practice of inoculating the system with variolous matter, and nursing the patient carefully—as things were in those days—through the disease thus communicated. This idea of inoculation is probably of very ancient origin, having been in vogue, it is said, in India in ancient times; and similarly a method of communicating the infection was employed in China by placing a small quantity of smallpox crust in the nostrils. The method, like present-day vaccination, was not conducted gratuitously—it was known as "buying the smallpox." In more recent times it was practised in Turkey, whence, through the instrumentality of Lady Mary Wortley Montagu, it was introduced into England. Whether this inoculation did more harm than good has always been a debated question—it was satisfactory to the individual but by no means so to the community, and there is every reason for the belief that though the inoculated disease was usually of a mild character, infection was spread throughout the country and many persons took smallpox who otherwise would not have had it.

Tracing events further, we come to May 14, in the year 1796, on which Edward Jenner, a Gloucestershire practitioner, "vaccinated" a youth of 8 years of age with "lymph" taken directly from a pustule of a dairy-maid who had become accidentally infected with a disease prevalent at the time amongst cattle, termed cow-pox. This accidental infection is termed "casual" to distinguish it from the intentional form which is the subject of these notes. Though giving Jenner all honour, it is possible the idea was not absolutely new on earth. There exists, I understand, in the British Museum, a Sanskrit document, according to which a priest is said to have been called to a prince who was sick unto death with smallpox. He told the prince that had he been summoned earlier, he could have overcome the evil by inserting under the skin a thread steeped in the matter of a cow with pox. He would, the priest stated, have passed through a slight fever, to be restored to health and strength again. The prince died.

Jenner had long been making observations on the preventive power exercised by this cow-pox over smallpox. The fact that having been previously thus infected conferred immunity to smallpox was, indeed, commonly known amongst the Gloucestershire farmers, and it was a country girl who taught Jenner this—to us now—simple lesson, some time prior to the date mentioned. True to his expectations, all went well with Jenner's first "vaccinated" patient, and the next point was to ascertain whether the "vaccination" really prevented smallpox. After waiting six weeks he was able to satisfy himself as to this by inoculating the youth with variolous matter—without any result. Later, on the occasion of a further outbreak of natural cow-pox, he was able to transfer vaccinal infection from one human subject to others, which, speaking briefly, clinched the matter. In 1798 Jenner published his epoch-making "Inquiry," and in a little while he became famous throughout the civilised world. Continuing on these results, attention was drawn to a similar disease in other animals—*e.g.*, "grease" in horses and swine-pox. Jenner was doubtless slightly in error in thinking that "grease" was in reality an antecedent of the bovine form, and that it was communicated probably by human aid from the horse to the cow. Investigations proved equine and bovine forms of the disease to be of common origin, if not identical, and, in addition to

the now customary "calf-lymph," many strains of equine vaccine have been raised and used for vaccination.

With the appearances of the arm on vaccination all are well acquainted; but it may here be stated that three or four distinct stages are claimed—firstly, there is a traumatic reaction, which subsides; then the *papule* is produced by an increase of intercellular fluid, which is specific, and from which it is possible to vaccinate; vacuoles gradually appear in the centre, by the extension of which the papule becomes the *vesicle*; and, finally, the *pustule*, containing purulent matter, is produced. It may be mentioned that the aim of modern vaccinators is not so much to produce the old-time inflammation, but to procure a small typical "pock" in due course, thereby discomforting the patient as little as possible. Although authorities differ as to the conduct of some of the details, the following procedure is a well-recognised method of vaccinating. One should be vaccinated every fourteen years.

RULES FOR VACCINATING.

1. Sterilise a small lancet just before use by holding in the flame of a spirit-lamp.
2. Clean the arm by means of a little ether soap or absolute alcohol, or both (no antiseptic is necessary), and blow out the contents of a tube of lymph on to the surface, using a small rubber syringe ball, which fits on the tube. Avoid the older method of ejecting the lymph by the mouth, as this, besides being entirely foreign to modern principles of asepsis, may result in an unfortunate vaccination of the lips of the operator.
3. Scarifications are made in four or five sets, each set having an appearance similar to two "sharps" on a sheet of music, and being not larger in diameter than $\frac{1}{4}$ inch. They should also be placed an inch or so apart from each other, to prevent the possible confluence of the resulting vesicles.
4. The lymph is rubbed and pressed into the skin at these points, stretching the skin the while.
5. The arm is kept exposed for a little time. This may favour absorption. Wrap with a pad of antiseptic dressing.
6. Though the lymph will keep well for months in the sealed tube, it should be used at once when opened.
7. Make it a rule to again sterilise the lancet after each vaccination.

VARIOLA AND VACCINIA COMPARED.

At the commencement of vaccination by means of calf-vesicle pulp, there arose naturally a sceptical community who questioned the preventive power which mere "vaccination" with the product of an animal infected with cow-pox could possess over smallpox, as the two diseases were thought by many to be distinct, and in spite of numerous and indefatigable investigations there exist to this day a faction who maintain that this is so. These experiments, having for their aim the production of cow-pox in the cow or calf by inoculation of variolous matter from the human being, have been attempted in Great Britain with considerable success (by, *e.g.*, Badcock, Simpson, Copeman, Klein), in Germany (by Voigt and Fischer), in Switzerland (by Haccius and Eternod), and in India (by King and Simpson). The order mentioned is not chronological. The first-named—a Brighton chemist—succeeded in variolating a cow, and supplied large quantities of lymph to the medical profession from his result. Copeman was successful in one instance out of four. Together with Klein, his results differed from those of the other investigators mentioned, in the respect that they obtained no vesicles in the animals, at any rate, none in the first inoculation (but on one or two removes, however); whereas the other workers—Badcock, Haccius and Eternod, King, Simpson, &c.—claimed to have obtained, at or near the seat of inoculation, a vesicle resembling the vaccine-vesicle. Hence the conclusion is that variola has been altered and modified, by passage through the calf, to vaccinia causing the typical vaccine-vesicle, yet without producing a general eruption. Furthermore, as vaccinia so produced can be transferred again to the human being without serious results, this ground is even more tenable. The most reasonable assumption, as Copeman states, is probably that variola and vaccinia have a common ancestor.

THE VARIOLOUS TEST.

Inoculation with smallpox in the times of Jenner, as has already been pointed out, was a general routine method of protection, and we may regard as an indirect outcome of it what is known as the "variola test," consisting simply of inoculation with variolous material to test the

efficacy of vaccination. Nowadays inoculation of the human being under any pretext whatever is a penal offence, but here Nature assists the investigator by providing monkeys for his research. That monkeys are susceptible to variola (contrary to previous opinion) has been demonstrated by Copeman and others. Monkeys are available in many parts of the world, and this variolous test will doubtless be applied, as suggested in a recent editorial in the *British Medical Journal*, for the investigation of a "sport" form of variola of mild character, now prevalent in America.

ANIMAL VACCINATION.

By this is understood the communication of the virus of cow-pox to man. The "calf-lymph," obtained in the way to be described, may be said to consist of the plasma of blood, together with corpuscular elements, bacteria, and the virus from the vaccinal organism, the identity of which will be discussed under another heading. The original stock of the vesicle-pulp used must have been obtained from a case of true natural cow-pox. In 1879 a report was drawn up for the use of the Conference on Animal Vaccination, in which the advantages of animal lymph over human lymph were set forth. A full account will be found in the *British Medical Journal* of November 9, 1879. Briefly it amounts to this: Animal vaccination has the important advantage in that the subject is not open to all varieties of disease which might be communicated from the "source." It might be urged that the patient could become affected with some disease from which the calf might be suffering, but this is entirely *extra muros*, as, in the first instance, few of these diseases are communicable to man; and, in the second place, they are so easily recognised in the animal that a calf so infected could not possibly be admitted for lymph-manufacture. Lymph of long humanisation may have lost much of its power of protection, and the patient vaccinated with lymph of this kind may be liable to smallpox infection. The protection afforded with calf-lymph is more thorough and lasting.

By the courtesy of Dr. Renner, I was recently permitted to closely observe many of the details of lymph-manufacture, and some interesting information was secured. In the early days when he commenced the manufacture and distribution of calf-lymph, the doctor was accustomed to keep his premises open for vaccination direct from the calf, but since the introduction of the accustomed tubes this is no longer necessary. To commence the work of lymph-manufacture it is obviously necessary to first find one's cow with spontaneous cow-pox. In Dr. Renner's case it is on record (*B.M.J.*, i., 81, 663) that his strain of lymph originated from a case of natural cow-pox which occurred at Beaugency, a small village in France. Lymph from this animal was sent to a vaccination-establishment in Holland, and there the propagation was carried on from calf to calf through, at that time of writing (April, 1881) close on six hundred generations without a failure, and from one of these descendants Dr. Renner obtained the lymph with which he vaccinated his first calf. In the course of after-events it was obviously impossible to maintain that particular strain of lymph down to the present day. The doctor's practice now is to select and propagate the strain which has been found to be the most active.

THE BACTERIOLOGY OF LYMPH.

On this subject an immensity of work has been conducted, and now and again some investigator comes forward with the statement that the specific organism has been discovered. The great difficulty in the matter is that the organism—as doubtless there is one—objects to grow upon any of the media usually employed for bacterial culture. One of the first workers was Chauveau (his results being afterwards confirmed by Burdon Sanderson), who proved that clear filtered lymph is no longer active, the activity being in the "particles" left upon the filtering-medium. Quist showed that the "specific contagium" could exist for a time in the presence of glycerin. Cohn, Klebs, Feiler, Guttman, and many others have also worked on the subject. Crookshank found a large number of bacteria, including micrococci, bacilli, torulæ, &c., none of which could be looked upon as the cause of vaccinia.

Klein has reported upon an extremely minute bacillus found both in calf-lymph and in variolous human lymph.

It was, however, impossible to cultivate the organism. Copeman made observations similar to those of Klein, and detected the minute organism in the skin of a calf-vaccine vesicle. He succeeded in cultivating the organism by means of egg-cultures with remarkably satisfactory results. Saint-Yves Ménard confirmed Copeman's views to the effect that organisms which may be isolated by ordinary means are in no way specific. In conjunction with Blaxall, Copeman found the following organisms (arranged in order of prevalence): (1) *Staphylococcus cereus flav.* and *Staphylococcus cereus alb.*; (2) Yeasts of three varieties; (3) *Staphylococcus pyogenes alb.*; (4) *Staphylococcus pyogenes aur.*; and (5) *Staphylococcus pyogenes citr.*, together with *B. mesentericus*, *B. subtilis*, moulds, and sarcinæ which are merely chance contaminations.

Leaving these investigators, we may glance at those who, finding the bacteriological footpaths too downtrodden, have gone further afield to the crops of a higher form, and who would assign the vaccinal power, for example, to a protozoon. Of these amongst many others are Pfeiffer, Ruffer, and Guarnieri. The parasite found by the last-named is called by him *Cytoryetes vaccine*, and may be observed on histological examination in the tissue alongside the nuclei within twenty-four hours of vaccination. Bacteriologists, however, do not favour these views—Copeman, for example, thinks these parasites probably represent "the result of epithelial irritation caused by the scarification, together with that—of a non-specific nature, however—set up by the vaccine lymph employed."

THE PREPARATION OF CALF-LYMPH.

Well-fed female calves are selected, kept under careful supervision for a week to detect any sign of disease, examined by a veterinary surgeon, and if found apparently suitable are vaccinated as follows: The calf is placed on a tilting-table. A large portion of the lower abdomen is shaved and washed with phenol solution, then with sterile water, and finally dried with sterilised towels. By some a previous disinfection of the calf with formalin-vapour is conducted. Incisions, scarifications, or punctures are then made in the cleansed surface as deep as possible, but without drawing blood. Glycerinated lymph which has been found to be free from "extraneous" organisms—*i.e.*, those which are totally unnecessary (as described under the examination of lymph)—is then allowed to run into these incisions, or by some it is rubbed in all over the surface with a spatulum. After five days the vesiculation will be in full progress as depicted in the photograph kindly lent by Dr. Renner. The animal is again placed on the table, and the entire surface is well washed and dried with the strictest aseptic precautions. If the operation has been successful, the vesicles exhibit the typical central depression, and in the event of sets of punctures having been made close together originally, they run together to form one continuous swelling. Any scabs which may have formed are carefully taken off. The first portion of liquid lymph is allowed to escape, and the vesicle-pulp is carefully removed by means of a Volkman spoon into a weighed sterile bottle. In this process care is taken to prevent the admixture of blood. The calf is then killed and examined by the veterinary surgeon who forwards his report. This report is always awaited before issuing to the medical profession. The calf is none the worse for the process, except that it is killed.

GLYCERINATION.

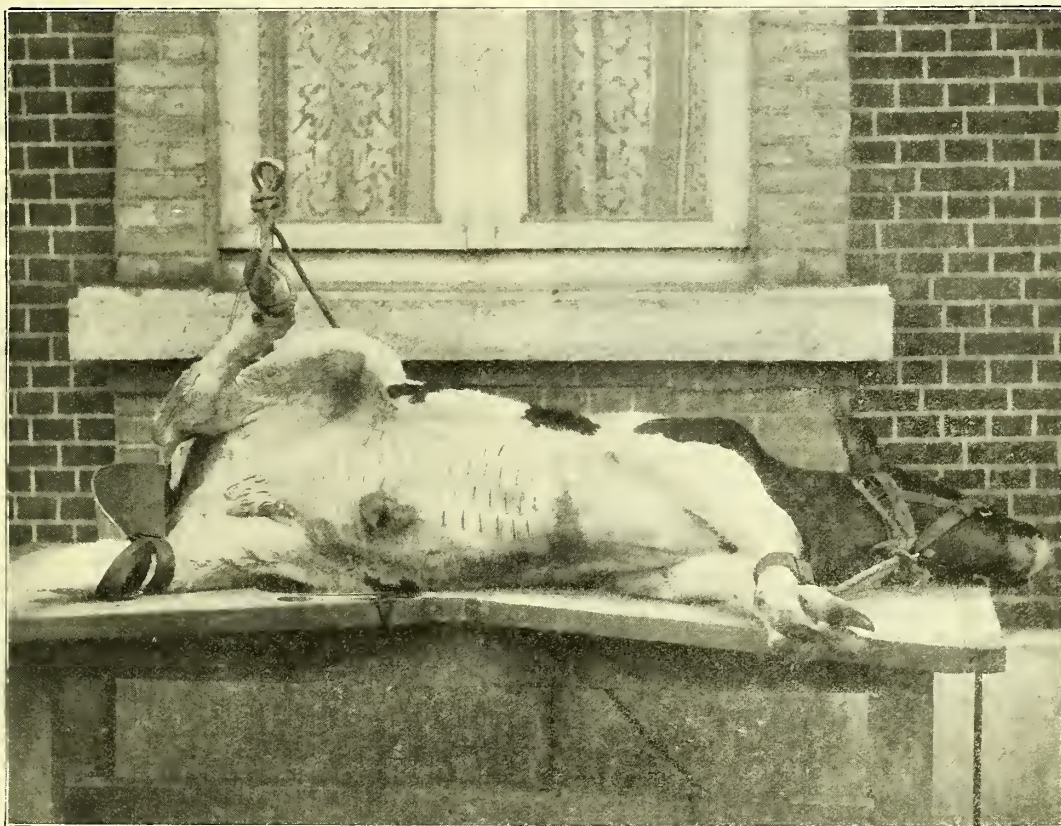
More than fifty years ago it was discovered that the addition of glycerin to "lymph" prevents decomposition and keeps it in a fluid condition for a considerable time. To those initiated with the simple theory of glycerination there is nothing more droll than inquiries for "fresh lymph—must be glycerinated." The reason is that glycerinated lymph is purposely kept for a varying period of from six weeks to six months before it is issued for vaccination. The vesicle-pulp having been collected in the sterile vessel as described, is weighed and mixed forthwith with one and a-half times its weight of glycerin; this is the proportion adopted by Dr. Renner, but some establishments dilute considerably more. Dr. Renner informs me he has no occasion to dilute to a greater extent than that mentioned, the supply being equal to the demands of the most extensive epidemic. As an

instance of the amount which in times of stress he is able to supply, the doctor informed me that during the week ending October 5 he sent out 21,512 tubes of fully-matured lymph.

Copeman and others, by a series of far-reaching experiments, have proved the value of glycerination, all "extraneous" organisms being gradually killed off, until at the end of a month only a few spore-bearing organisms hold the field in company with the redoubtable *De Wet* of the battle—the questionable "vaccinal organism." Copeman, Klein, and others have shown that even the villainous tubercle bacillus goes under in this sweeping glycerin-war. If the collection of the lymph be carefully conducted, the comparatively innocuous spore-bearing organisms may be excluded. Indeed, it is possible to produce an absolutely sterile lymph in this

power. The finely mixed lymph exudes from the base of the cylinder, and is collected in a sterile vessel. The product presents a turbid appearance, owing to the minute broken granular tissue and cells present, in which, as Dr. Renner claims, the vaccinal activity principally predominates.

The filling of the tubes is the simplest part of lymph-production. At the time of filling, the glycerinated lymph is diluted with a very small quantity of sterile water, this addition being necessary as the pulp-and-glycerin mixture is otherwise too thick to run into the tubes. Capillarity and gravity bring about the desired result: a small quantity of the mixture is poured out on to a glass plate, and one end of the tube (open at both ends) is inserted into it, and then laid down on the edge, with the result that sufficient lymph enters. On sealing in a blowpipe-flame it is ready



THE ILLUSTRATION SHOWS THE VACCINE-VESELLES IN A CALF ON THE FIFTH DAY.

way. During the process of glycerination agar plate-cultures are conducted, by means of which the killing-off process may be observed.

FILLING THE TUBES.

The next operation is to reduce the vaccinal pulp and glycerin to a state of fine comminution. This is brought about by passing the mixture through a lymph-mixing or triturating machine. There are two forms in use, both emanating from the Continent. The first, invented by Döring, of Berlin, is composed of four glass rollers arranged on the familiar "mangle" system, through which, after sterilisation, the lymph passes. The second, shown in use at Dr. Renner's establishment, is known as Chalybäus's instrument. After complete sterilisation of the parts, the lymph-pulp is poured into the central funnel, through which a core runs, which consists of a screw starting with a coarse thread at the top and becoming gradually finer towards the base. This screw-core fits closely in a solid brass cylinder (also with screw), as the picture (p. 631) shows, all that is necessary is to work the screw on a table resembling a sewing-machine stand, by the foot, or by water or electro-motor

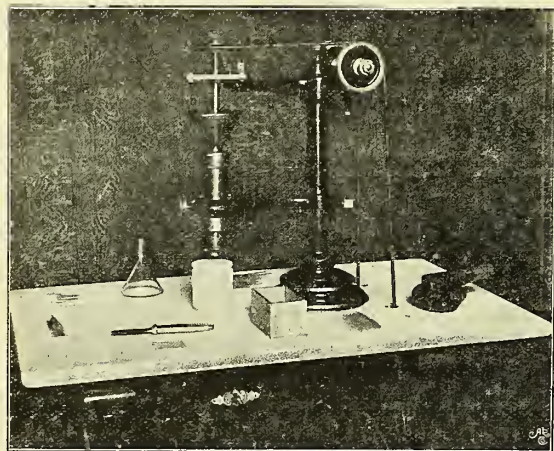
for distribution. The tubes before filling undergo a thorough sterilisation.

BACTERIOLOGICAL EXAMINATION OF GLYCERINATED CALF-LYMPH.

The bacteriological examination of lymph is not fraught with any great difficulties. If, for example, it is desired to test a sample which has undergone glycerination for any length of time, all that is necessary is to transfer a small portion of it, with strict aseptic precautions, into a tube of melted sterile agar or gelatin and to prepare plate-cultures in the ordinary manner. Agar-cultures are looked upon as the more important, as most of the injurious parasitic organisms grow with greater strength at the temperature of the body (at which agar, and not gelatin, may be maintained). These plate-cultures may then be counted by means of a Pakes disc, and further cultures may be prepared from the colonies *secundum artem*. In addition to these, glucose-agar cultures may be made with the object of detecting the presence of any anaërobic organisms.

In 1895 Landman examined the lymphs from thirteen German institutes, and found organisms varying in number

between 50 and 2,500,000 per cubic centimetre. Recently—in April last year—the *Lancet* published a report of a Special Commission which had some time previously been appointed to thoroughly examine lymph on the market in this country. In some initial experiments this Commission again established—broadly speaking—that when glycerin growths of a mixture of organisms are conducted until the number of organisms is “constant,” nothing but non-pathogenic spore-bearing organisms remain. The opinion is expressed that the vaccinal organism is probably a spore-bearing one. A dozen or more samples of calf-lymph from various supply depôts were then reported upon, and it is



LYMPH TRITURATING MACHINE.

gratifying to be able to state that Dr. Renner's lymph heads the list as to bacterial purity. As already stated, by careful manipulation, absolute sterile lymph can be produced, but the Commission concluded that “so long as the non-spore bearing organisms are eliminated, and the spore-bearing and anaërobic organisms reduced to a minimum, it is not necessary to send out absolutely sterile lymph.” This statement refers, of course, to such organisms as are capable of cultivation on ordinary media.

Some excellent pamphlets and leaflets regarding vaccination, for distribution more particularly amongst the poorer uneducated classes, may be obtained from the British Medical Association, 429 Strand, London.

Scientific Progress.

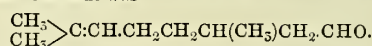
Gomenol.—This name has been assigned to the essential oil distilled from *Melaleuca viridiflora*, one of the myrtaceous plants of New Caledonia. It is a mobile liquid of sp. gr. 0.922, and rotatory power + 0° 42'. It appears to consist chiefly of terpene alcohols, and is intermediate in its general properties between camphor and menthol. Gomenol has been employed with success in cases of chronic bronchitis and pulmonary tuberculosis.

Chemistry of Oil of Theobroma.—J. Klimont (*Berichte*, 1901, 2, 636) states that by fractional crystallisation of oil of theobroma from acetone, it can be separated into three main portions. That with the highest melting-point, melts at 64° C., and does not absorb any iodine. Crystals melting at 70° C. were isolated from it, and found to be a mixture of the triglycerides of stearic and palmitic acids. The second portion, melting at 31° to 32° C., had the empirical composition $C_{55}H_{104}O_6$, and a saponification number 196.4. It was a mixture of the triglycerides of palmitic, oleic, and stearic acids. The third portion melted at 26° to 27° C., had a saponification number 210.5, and an iodine number 31.7. Its constitution was not determined, but it appears certain that the triglyceride of oleic acid does not occur in this fat.

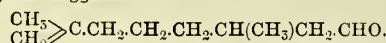
Alkaloids of Corydalis Cava.—A complete summary of the results which have been obtained in the recent examinations of this drug is published by Gadamer in the *Pharmaceutische Zeitung* (1901, 775). The following bases were already well known: corydaline, corybulbine, corycavine, bulbocarpine, and corytuberine, and, lastly, corydine an amorphous alkaloid described by Merck. A

very exhaustive examination of the mixed bases by treating the ammonia extract with ether has shown that the following may be separated. Ether extracts, a series of alkaloids which may be directly crystallised, including corydaline, corybulbine, corycavine, and bulbocarpine. There is then left an amorphous mixture, which appears to be Merck's corydine. This can be separated into several crystalline bases, and several which are really amorphous. The former include isocorybulbine, of the formula $C_{21}H_{25}NO_4$, melting at 179°–180° C.; corycavamine, $C_{21}H_{21}NO_5$, melting at 149° C.; corydine, either $C_{21}H_{25}NO_4$ or $C_{21}H_{23}NO_4$, melting at 129°–130° C. In addition, there is a base melting at 135° not further investigated. The amorphous bases include a base which yields a well crystallisable hydrochloride, and a mixture of bases which yield only amorphous salts, and which have not yet been investigated. The base corytuberine remains in the ammoniacal extract, and is not taken up by the ether. [Compare Dobbie on the same subject, *C. & D.*, December 15, 1900, page 948.]

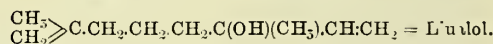
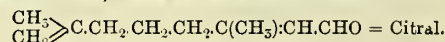
Constitution of Citronellal.—Harries and Schaubwecker, in the current issue of the *Berichte*, publish an exhaustive investigation into the constitution of the aldehyde citronellal. This body has been somewhat neglected on account of the prominence given to its ally, citral. The paper includes a good account of the aldehyde, commencing with its discovery by the American chemist Dodge. The original formula assigned to it by Tiemann and Schmidt was



The correctness of this formula was first questioned by Barbier and Léser, who suggested



The present work, which has attacked the problem in an entirely fresh manner, supports the latter formula, and the concluding remarks of the paper are to the effect that the natural olefinic compound citral, linalol and methylheptenone, may possibly have analogous formulæ, which would then be as follow:—



Oriental Storax.—Tschirch and Van Itallie, who have recently published an account of their investigations on American storax, also give an account (*Apotheker Zeitung*, 1901, 505) of their work on the Oriental variety. They have examined the free acid from a number of samples, and find that it is pure cinnamic acid, and have not in any case been able to find even traces of benzoic acid. Small quantities of an aldehyde were separated, as in the case of the American variety, and were found to be vanillin, although the quantity was too small to allow of a full examination. The combined cinnamic acid was found to be present in the form of the ethyl and the phenylpropyl esters. The main resin constituent was found to be the ester of cinnamic acid and an alcohol, which the authors term storesinol (that from American storax they have termed styresinol). When carefully purified storesinol is free from ash, and forms white odourless powdery fragments, which are strongly adherent when rubbed for a short time. It melts at 156° to 161° C. [A feature which does not say much for the individuality of this so-called compound.—Ed. *C. & D.*] It is soluble in alcohol, methyl alcohol, amyl alcohol, ether, chloroform, acetone, carbon disulphide, benzene, phenol, acetic acid, and caustic alkalis. It is insoluble in petroleum ether. A series of combustions—which, however, are of very little use in determining the formula of a complex compound in the absence of other evidence—gave results which agree well with the figures $C_{16}H_{26}O_2$. It form a compound with potassium by heating with a solution of caustic alkali, and is reduced to a mixture of volatile hydrocarbons by distillation with zinc dust. Well defined ethers were prepared, and also a bromine compound. Styrol and styracin were also found in the balsam. The quantitative results of the examination are as follows:—

	Per cent.
Insoluble in ether ...	2.4
Water ...	14.0
Styrol and vanillin ...	2.0
Free cinnamic acid ...	23.1
Aromatic esters ...	22.5
Resin compounds ...	36.0

The acid number of the storax was 81, the ester number 98, and the saponification number 179. The saponification figure of the esters and styrol was 209. The total cinnamic acid was 47.3 per cent., of which 23.1 per cent. was free, and the remainder combined.